Programming for Students with Special Needs

SPECIAL EDUCATION SERIES

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This document is intended for:

Students	
Teachers	✓
Administrators	✓
Counsellors	✓
Parents	
General Public	

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Introduction to the Series

Programming for Students with Special Needs is a series developed in response to a needs assessment survey conducted by the Special Education Branch of Alberta Education in the Spring of 1992.

The information provided by survey respondents has been used to guide the nature and content of the series. The respondents indicated the need for practical suggestions about instructional strategies, classroom management, preparing individual program plans and understanding the nature of special needs. They also wanted information about the availability of special education resources.

The following books are included in the series. The information in each book is interrelated and can be used to provide instruction to all students.

Book 1: ***Teaching for Student Differences***
Highlights strategies for differentiating instruction within the regular classroom for students who may be experiencing learning or behavioural difficulties, or who may be gifted and talented. It includes ideas for varying instructional time, the learning environment, resources, materials, presentation, assignments and assessments to accommodate students with diverse needs. This book contains instructional strategies for core subjects as well as by categories of differences; i.e., learning disabilities, behaviour disorders and gifted and talented. A variety of useful forms to assist teacher planning is found in the appendices.

Book 2: ***Essential and Supportive Skills for Students with Developmental Disabilities***
Includes:

- developmental checklists for communication skills; i.e., receptive, expressive, social, articulation and vocabulary
- checklists for gross and fine motor development, including colouring, graphics, manuscript printing and cutting
- charts and checklists which provide a continuum of life skills by domain (domestic and family life, personal and social development, leisure/recreation/arts, citizenship and community involvement, career development)
- checklists for mathematics, reading and writing to Grade 6
- an annotated list of other teaching resources.

Book 3: ***Individualized Program Plans***
Contains a process for IPP development and strategies for involving parents. This book provides information on writing long-term goals and short-term objectives along with case studies and samples of completed IPPs. It addresses transition planning and features forms and checklists to assist in planning.

Book 4: ***Teaching Students Who are Deaf or Hard of Hearing***
Includes information on the nature of hearing loss and the various communication systems which may be used The book contains information on amplification, educational technologies, program planning and teaching strategies.

Book 5: ***Teaching Students with Visual Impairments***
Is under development in collaboration with the British Columbia Ministry of Education. The expected release date is Spring 1996.

Book 6: ***Teaching Students with Learning Disabilities: Classroom Strategies***
Is under development in collaboration with the Elk Island Public Schools Regional District. The expected release date is Spring 1996.

Programming for Students with Special Needs is not intended to be a complete authority on the many disciplines associated with the education of students with special needs. In providing instruction to students with special needs, staff should utilize the support services available in their jurisdiction.

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Introduction

Students differ in the way they learn, in the rate at which they learn, in their confidence as learners, in their ability to get along with others and in the way they behave. Effective teaching requires consideration of student differences. The challenge for teachers is to provide each student with programming that:

- provides challenge and success
- promotes growth
- involves him or her as an active learner
- provides age and developmentally appropriate learning experiences
- enhances continuity of learning
- increases self-esteem through the demonstration of learning.

There is a relationship among all components of programming for student learning: the nature of the student, curriculum expectations, evaluation, assessment, communication and organizational and instructional strategies. This book focuses on organizational and instructional strategies, one of the components of programming for student learning.

Instructional Strategies

Effective teachers select strategies based on their judgements about the nature of the student, what the student can do and what knowledge, skills and attitudes the student should learn next.

Strategies are not generally tied to specific student differences. A strategy that works well with a gifted and talented student may also be effective with a student who has a learning disability or a behaviour disorder. Strategies for improving social skills or self-concept can be integrated in the teaching of language arts, mathematics or any other subject or skill within any domain. Strategies are often applicable for students at all grade levels including junior and senior high school.

To provide teachers with a starting point, the strategies are sorted as follows:

- generic strategies: learning styles, prosocial skills and cooperative learning (Section I, page TSD.3)
- organizational and instructional strategies related to varying time, environment, resources, materials and presentation (Section II, page TSD.12)
- general adaptations and adaptive techniques in language arts and mathematics (Section III, page TSD.18)
- categories of differences: learning disabilities, managing behaviours in the classroom and gifted and talented (Section IV, page TSD.31)

- strategies placed in context, for instance, within a particular individual program plan, used in response to particular learner characteristics or in an effort to meet certain goals (Section V, page TSD.55).

Although this book includes a broad range of strategies, teachers will have many others to incorporate into their teaching. Additional information and strategies are provided in the following documents which are available from the Learning Resources Distributing Centre:

- *Behavior Disorders in Schools: a Practical Guide to Identification, Assessment and Correction* (1986). Alberta Education.

- *Teaching Students with Learning Disabilities: Classroom Strategies* (to be released Spring 1996) — Book 6 in the *Programming for Students with Special Needs* series. Alberta Education.

- *Teaching Students Who are Gifted and Talented* (to be released by Fall 1997) — Book 7 in the *Programming for Students with Special Needs* series. Alberta Education

For additional resources, consult Alberta Education's *Resources for Special Education & Guidance and Counselling: an Annotated List,* available from the Special Education Branch.

Selection and implementation of instructional strategies are ongoing processes. Because different strategies are designed to achieve different goals and to respond to different student needs, periodically reviewing strategies helps ensure a range of strategies is used. Most teachers use a broad range: directive strategies such as one-to-one and direct instruction; mediative strategies such as open-ended discussion and concept formation; collaborative strategies such as peer tutoring and cooperative learning; generative strategies such as brainstorming and forecasting and independent strategies such as learning centres and science fairs.

Ultimately the effectiveness of a strategy is measured by whether or not the student can demonstrate the knowledge, skills or attitudes expected. Some tips:

- give a particular strategy time to work
- track strategies used with a particular student
- do not discount a strategy simply because it did not work in the past; the timing or the setting may not have been correct
- be prepared, however, to modify or change a strategy if student feedback suggests it is not working.

In practice, ascertaining the effect of a particular strategy requires ongoing monitoring. A sample form to help teachers track strategies is provided in Appendices 1 and 2, pages TSD.60–61.

Section I
Generic Strategies

This section provides information about learning styles, prosocial skills instruction and cooperative learning strategies. These strategies are not specific to a discipline or category of difference.

Learning Styles

Students often have a preferred mode of learning. Some students learn best by seeing (visual), others by hearing (auditory) and yet others by touching and moving (kinesthetic). Some students do not have a strong preference. For others, their preference may vary depending on the situation and type of information. Learning and skill development are enhanced if teachers recognize differences and vary instruction. Acknowledging, understanding and accepting the concept of learning styles can lead to responsive instruction where teachers provide a wide variety of lessons, use a broad range of strategies, activities and types of assessment materials and methods.

Teaching to all modalities benefits students because it ensures that each student's learning style preference is addressed, thereby enhancing opportunities for the student to learn material and develop skills.

The implications of learning style research for teachers and students are that:

- students should try to understand how they learn best
- students should learn compensatory strategies; for example, those who have difficulty attending when the teacher is instructing can learn to put themselves on the alert and concentrate on mind mapping or note-taking
- lessons should be planned to accommodate the different ways students learn.

There are many perceptual preference inventories. Samples are provided in Appendices 3 to 7, pages TSD.62–66. Because students learn in different ways and their preferred way may even be situationally dependent, the key for teachers is to acknowledge differences and provide varied instruction and assessment.

The following strategies accommodate specified modalities and can be used in various combinations in any particular lesson to suit the different ways in which students learn.

Kinesthetic Style

Strategies which accommodate kinesthetic learners include:

- using classroom demonstrations
- using experiential learning, simulation activities, field trips
- painting, drawing, creating models, slides, videotapes, puppets, dioramas
- clapping or tapping out numbers, syllables, etc.
- lab work
- teaching students to take notes
- show and tell
- acting, mime, charades, dancing, rhythmic movement
- using games, puzzles, manipulatives
- using sandpaper or felt letters, writing in sand or clay, using three-dimensional letters and numbers.

Visual Style

Strategies which accommodate visual learners include using:

- artifacts, objects, models
- slides, transparencies, illustrations, graphics, demonstrations
- abacus, colour-coding systems, rulers and number lines, visual symbols for sound
- maps, charts, graphs, pictures, diagrams
- microscopes
- dictionaries
- matching games, configuration clues
- visual clues on the chalkboard for all verbal directions
- visualization techniques (visualize spelling words)
- coloured markers, pens or chalk on the overhead or blackboard.

Auditory Style

Strategies which accommodate auditory learners include:

- direct instruction, lecturing
- having learners verbalize tasks
- using tape recorders; for example, having students listen to a tape while they read
- reading to students, paraphrasing
- providing listening centres
- allowing learners to think out loud and spell audibly
- using records, tapes and films
- employing music, rhythm, melody
- saying syllables orally, integrating music, using choral speech, rhyming games, debating, radio plays and discussions
- giving verbal as well as written directions.

To help plan lessons which incorporate the three learning modalities, a lesson planning form is provided in Appendix 8, page TSD.67.

Prosocial Skills

Social skills, such as listening to the teacher or reaching a compromise, enable students to function well in school and to get along with others.

Although many social skills are acquired through experience, the non-systematic nature of experience may result in some students lacking certain skills or learning inappropriate behaviours. Instruction in prosocial skills provides opportunities for all students to acquire or practise skills which facilitate learning and social interactions. Social skills instruction can be incorporated in core or complementary course lessons or offered in separate lessons.

A review of prosocial skills programs and resources indicates a fair degree of consistency in the way in which skills are grouped. The following groupings reflect a synthesis:

- **classroom survival skills** include skills such as listening to the teacher, following instructions and classroom rules
- **interpersonal skills** include skills such as complimenting others, beginning a conversation, making eye contact, listening and joining in a discussion
- **emotional management skills** include skills such as recognizing another's feelings and recognizing one's own feelings
- **coping or anger management skills** include skills such as self-control and responding appropriately to teasing or insults
- **stress management skills** include skills such as responding to failure and dealing with embarrassment.

Process for Social Skills Training

Research indicates consensus on the process for social skills training. The process includes:

- communicating the reason for developing the skill (sharing the objective and purpose)
- indicating a non-example and continuing with good examples
- defining the skill or considering what steps are involved in the skill
- modelling the skill
- students creating role-play situations
- providing feedback to ensure processing of the skill
- providing opportunities for transferring the skill to other situations.

The ultimate goal of prosocial skills training is to have the learned skills used in real-life situations. Suggestions to guide planning of social skills lessons follow:

- focus on a limited number of skills a year and build on these
- start with a simple skill such as following directions, listening, responding to signals, asking for help, or ignoring; not with a more complex skill such as response to aggression
- teacher models a non-example; asks students what the teacher did and pulls skill steps from the students' responses; students identify, in their own language, what was wrong and what should be done
- teacher models several positive examples; always provide more positive examples and never include students in non-examples
- have students role play situations
- to reduce anxiety, begin by having teacher and students role play together, move to guided role play (the teacher structures the situation) and finally, to independent role play (students generate the ideas and come back to the group and debrief)
- use a specific process to provide feedback
  - provide feedback to the main actor (did he or she stay in role, make it seem real, use all the steps and use appropriate body language?)
  - provide feedback to co-actors (did they provide realistic details?)
  - provide feedback to the audience (how well did they watch, how well did they pick up non-verbal cues?)
- provide opportunities throughout the day for feedback and practising the skill.

The chart on the following page provides ideas for creating role-play situations to teach the interpersonal skill of compromising.

See Appendix 9, page TSD.68, for sample elementary and junior high school social skills lesson plans, Appendix 10, page TSD.72 for simplification of skill steps for young students and Appendix 11, page TSD.73, for an annotated bibliography of social skills training resources.

Role-play Situations[1]

Situations Target Behaviours	School Problems (Teacher/Peers)	Neighbourhood Problems	Sibling Problems	Parent Problems
Listen Carefully	Your teacher is assigning special jobs. By mistake she assigns two of you the same job.	You and a friend can get one pizza. Your friend likes pepperoni but you want ham.	Your mom asks what you and your sister want for dessert. You want ice cream; your sister wants cake. Mom will only serve one thing.	Mom gives you many jobs to do as she gets ready to leave. You're afraid you can't finish them all by the time she returns.
Treat Others Nicely	The winner of the spelling bee gets to choose the P.E. activity. When time is up, two of you are tied for first place.	A bunch of kids in your neighbourhood get together for a basketball game, but there is one extra person.	You and your sister go in the family room to watch T.V. Your sister wants to sit in the comfortable chair and so do you.	You ask your mom if she will take you swimming. She says she will, but she's doing the dishes right now.
Join in with Others	You are the team captain today. Two people on your team want to be the pitcher. You need to help settle the matter.	Your friend comes over to play. Your friend wants to ride bikes, but you want to play catch.	You and your brother are doing the yard. The jobs are weeding the garden and mowing the lawn. You both want to mow.	Your family plans to camp with friends who live far away. Dad doesn't want to drive that far; you know of a good place halfway.
Keep a Good Attitude	You have some free time during class to play a game. Your friend wants to play "Battleship" but you want to play checkers.	You go to your friend's house to go swimming. When you get there, your friend has decided to watch T.V. instead.	You and your brother both want to sit in the front seat of the car on the way to the store. Only one of you can fit.	One of your favourite T.V. shows is just starting but your parents come in and want to watch the news.
Take Responsibility for Self	You are on the playground with your friend. Your friend wants to play dodgeball but you want to play four-square.	You're babysitting. The two children start arguing about what game to play. You need to help settle the matter.	If you and your sister finish vacuuming and washing the windows, you can go out for ice cream. You both want to vacuum.	You go shopping with your mom. You like an outfit that costs $30. Mom has $20 for you to spend. You have $20 saved up.
Stay Calm and Relaxed	For a class project you are baking cookies. You and a classmate want to use the cutter at the same time.	You're staying at your friend's house. You want to go out and play. Your friend has to fold laundry.	You go and turn on the T.V. You want to watch one show, but your brother wants to watch another.	Your parents say you spend too much in sports; you have to learn an instrument. Mom prefers the harp.
Solve Problems	Your teacher has told you and a classmate that you can each take out a ball today. You discover that one of the balls is flat.	You and a friend go to the movies. When you both get there, you want to see one movie, but your friend wants to see a different one.	You and your brother have just finished building a model plane. You both want to put it in your own room.	Your mom is making chocolate chip cookies. She likes to put walnuts in them, but you don't like walnuts.

[1] From *Room 14 a social language program* (p. 99), by C. Wilson, 1993, East Moline, IL: Linguisystems. Adapted and reprinted with permission.

Cooperative Learning Strategies

Cooperative learning is an instructional strategy which involves students working cooperatively in small heterogeneous groups to accomplish common learning goals to maximize learning for all. Success results from the positive interdependence and mutual support developed among group members over time. Constructive peer relationships are a motivating factor for both cognitive and social development.

The ability to build and maintain positive relationships is important for all students. When students leave school, successful participation in the community and in the workplace is dependent upon not only knowledge and information-handling skills, but also upon skills of communication, critical thinking and problem solving, as well as the ability to plan and make decisions with others.

Research[2] suggests that cooperative learning contributes to:

- higher self-esteem
- higher achievement
- increased retention of information
- greater social support
- more on-task behaviour
- greater collaborative skills
- greater intrinsic motivation
- increased ability to see other points of view
- better attitudes toward school
- better attitudes toward teachers
- greater use of high-level reasoning
- more positive psychological adjustment.

In the Learning Together Model developed by Johnson and Johnson,[3] five basic elements are identified.

1. **Positive Interdependence**
   Positive interdependence is the perception that group members are connected and need each other in order to be successful in accomplishing a common goal. It may be enhanced through joint rewards (received by all when all teammates are successful), shared resources, assigned complementary and task-related roles and the establishment of a common identity. All group members must succeed for the group to succeed.

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[2] From *Circles of learning: cooperation in the classroom* (pp. 16–18), by D. W. Johnson, R. T. Johnson, et al., 1992, Alexandria, VA: Association for Supervision and Development. Adapted and reprinted with permission.

[3] From Johnson and Johnson (pp. 2, 8, 10, 14–22, 29). Adapted and reprinted with permission.

2. **Individual Accountability**
   This is the degree of responsibility each student feels toward mastering the learning and toward supporting all members of the group in their learning. The success of the group should be dependent upon the individual efforts of all group members. Each one becomes stronger individually. To maximize success for all, expectations and the method by which understanding is to be demonstrated should be established at the beginning of the lesson.

3. **Social Skills**
   In order for students to collaborate effectively, appropriate communication, leadership, decision making and conflict-management skills must be taught. Students must perceive the need for the skill, understand its specific attributes and have opportunities to practise the skill. By practising and receiving feedback, students continue using particular skills.

4. **Face-to-face Interaction**
   Students benefit from participating in carefully structured cooperative learning groups. Group members should be in close proximity to encourage dialogue so they can continually progress by helping, sharing and encouraging efforts to learn. Higher-level thinking tasks enhance the quantity and quality of the verbal exchange, as well as the intensity of the interaction. Positive interdependence, social skills and individual accountability enhance the nature of the face-to-face interaction.

5. **Group Processing**
   Students should be given opportunities for individual and group reflection about their learning. They need to assess their achievement of the academic task and their collaborative efforts. This process enables students to expand their effective use of skills and to identify ways in which to improve. Discussion and devices such as questionnaires, learning logs or checklists can be used. Processing enhances working relationships and reinforces the value placed on collaborative skills. This reflection is critical to the success of cooperative learning.

A typical cooperative learning procedure is provided on the following page. Two sample lesson planning guides, a social skills checklist and three samples of team or group evaluation forms are provided in Appendices 12–18, pages TSD.78–85.

Cooperative Learning Procedure

Element	Procedure	Notes
Positive interdependence	1. Students move to assigned (home) groups. Each group member receives a different portion of the information.	Students could decide on a group name prior to beginning task. (Positive interdependence identity)
Individual accountability	2. Students individually read their information, identifying main ideas.	
	3. Students move to form new groups of three with others having the same information (expert groups).	
Face-to-face interaction Social skills	4. In the new group, students discuss the information, clarifying the main ideas and determining a method of sharing information with home group members. Students use active listening skills.	Teacher monitors groups/individuals to assess students' understanding of academic and social skills; e.g., checklist, observation, anecdotal notes
Face-to-face interaction Social skills Positive interdependence • resource • goal • environment Individual accountability	5. Students return to home group and take turns sharing their information. As they share, group members demonstrate active listening skills and record key ideas on individual retrieval sheets, coming to agreement on information to be recorded and ensuring all group members understand the information.	Round Robin structure; e.g., a. Team goal: master material presented b. Outside force: time limitation imposed c. Criteria for success; e.g., gather minimum of three articles on topic d. Group rewarded for meeting criteria
Individual accountability Positive interdependence	6. One sheet per group is randomly selected by the teacher to be collected for assessment.	All group members sign the sheet indicating they agree with and can explain the answers.
Group processing	7. As a group, students reflect on their success at meeting the academic and social goals; e.g., checklist, rating scale, short answers, etc.	One reflection sheet per group provides an opportunity for students to reach a consensus, set goals for future lessons, etc. Teacher provides specific verbal feedback as well.

In order for cooperative learning to be successful, it is vital to establish and maintain a climate of trust and respect within the class. Ongoing team-building activities foster acceptance, appreciation, support and commitment among students by providing them with opportunities to communicate freely with one another about topics of personal importance (interests, experiences, talents, concerns, aspirations). Students, networking in the context of a large supportive group, can have a positive impact on academic achievement.

Within cooperative learning, the role of the teacher becomes that of facilitator. Academic and social objectives must be identified. Decisions must be made regarding appropriate grouping of students, room arrangements and materials. Before students begin the task, they must clearly understand how positive interdependence and individual accountability will be established and the goals and criteria for success. Monitoring students as they work together enables the teacher to intervene when necessary and to gather data on student behaviour and understanding in order to provide feedback after the lesson. Evaluation of the product and process of group work includes providing opportunities for students and teachers to reflect on the learning.

Typical Cooperative Learning Procedure

Academic and social goals should be established prior to the lesson. Students should be familiar in advance with the attributes of the specific social skill; e.g., active listening and the procedures for cooperative structures; e.g., Jigsaw, Round Robin. The teacher should inform students in advance of the criteria for success, of the procedure for selection of the final product and of the expectations of the group process.

Possible Follow-up Activities

- Debrief and check for understanding using Spencer Kagan's "Numbered Heads Together" structure. Briefly, this involves the following steps:
  - students number off (each student in the group has a different number)
  - teacher asks a question and gives a time limit
  - heads together (students put heads together and make sure everyone knows the answer)
  - teacher calls a number (random selection of number; students with that number raise their hands to be called upon).

  For more information, consult Spencer Kagan's *Cooperative Learning* (1992).

- Use Bloom's Taxonomy (thinking skill levels: knowledge, comprehension, application, analysis, synthesis, evaluation) to design follow-up question sheets to be answered by groups. Use one sheet per group; rotate roles of writer, reader and encourager. All students contribute ideas. One student could be randomly selected to report.

- Have students develop group presentations to share information with the class.

- Use individual quizzes or assignments for assessment/evaluation.

Section II
Organizational and Instructional Strategies

This section provides information about varying time, environment, resources, materials, presentation, assignments and assessment in order to accommodate students with diverse needs. Flexibility is the key to providing instruction which maximizes opportunities for all students to learn.

Varying Instructional Time

Using time flexibly means using time to respond to student needs, to opportunities in the community and to events happening in the world, province, city or town. It means using an interdisciplinary emphasis and timetabling around major school events to enable greater student and staff involvement.

Some specific suggestions are:

- allow some students to work at an assignment for only a short period of time and then move on to another
- allow other students to stick with an assignment until they feel satisfied; some students find it difficult to understand the continuity and do better with larger blocks of time
- allow some students more time to complete written assignments
- provide some students with specific schedules and forewarn them of tests and changes to routine; some students require structure
- alternate quiet and active times.

Varying Learning Environment

Recent studies have examined the effects of light and noise levels on the ability to concentrate. Varying the learning environment means being aware of such effects and being sensitive to the more specialized requirements of students with special needs. This doesn't preclude teachers from establishing a daily routine in the classroom.

Some specific suggestions are:

- permit a student to work in a quiet, uncrowded corner of the room or even in the hall outside the room but do not isolate a student against his or her will
- make use of headphones to quieten outbursts or reduce noise level
- make use of carrels or screens, change lighting; for example, provide a light on a student's desk
- provide an appropriate desk; for example, a wheelchair-accessible desk, lap-top desk, a desk with a side extension, flip-up top desk, or make use of a table instead of a desk

- provide accessories; for example, attach a pencil to the desk, attach a pencil to the student with an extension key ring, use bookends or a bookhold to keep books on the desk, have a list on the desk of items to complete, have a written or pictorial timetable on the desk or in a book, colour code class duo-tangs

- vary the place in which learning can occur; for instance, a laboratory or an outdoor setting rather than a classroom may be more conducive to the acquisition of some concepts

- colour code binders to assist secondary students who need to move from room to room.

Varying Resources, Materials, Presentation, Assignments and Assessment

Research supports the importance of varying teaching tools to respond to student needs. Such practice supports the belief that teachers teach students rather than a course. The charts on the following pages provides some specific suggestions, including suggestions for using computers and CD-ROMs.

Varying Resources, Materials, Presentation, Assignments and Assessment

Resources & Materials	Presentation	Assignments & Assessment
• Use parallel resources at different reading levels. • Use print and non-print materials, such as films, video and audiotapes and dramatic presentations. • Use teacher-and-student-made resources. • Use community resources, such as the local newspaper or radio station, local historian. • Use alternate modes of student materials, such as dictating to a scribe, tape recording, drawing pictures, enlarged or reduced materials, computers, calculators, manipulatives, overlays for textbook pages. • Use adapted devices, such as chalk holders, adapted scissors, built-up pencils, highlighters, erasable pens, corner pouches, alphabet or number line affixed to desk, date and number stamps, spell checker. • Use line indicators, sections on paper, graph paper or raised line paper. • Make window cards so that only one word or line is exposed at a time or allow students to use a small flashlight to follow a line from left to right. • Provide more white space for answers, highlight or colour code directions and key words, put less information on a page. • Adapt textbooks by colour coding; for example, use green for vocabulary, pink for definitions of terms, yellow for facts, names, dates and topic sentences containing a good summary of the information.	• Make use of peer assistants, volunteers or two or more teachers teaching cooperatively (a form to coordinate teaching activities of two or more is provided in Appendix 19, page TSD.86). • Minimize copying activities by providing information or activity on worksheets or handouts. • Provide material in manageable chunks; consider fewer mathematics problems on a page, short tasks, a few questions at a time, specific questions to guide reading; for example, advanced organizers. • Use hand signals or sign language. • Repeat instructions and provide in various formats such as oral, written or taped. • Have students repeat the instructions. • Stand close to the student. • Make use of diagrams, illustrations and multi-media computer systems to illustrate concepts. • Highlight key points in text books. • Use pictures and concrete materials. • Make use of overhead projectors, flipcharts, different coloured chalk and pens, cue cards. • Use students in presentation. • Make use of webs and outline charts (see Appendix 20, page TSD.87).	• Provide assignment options; options for making a report might include radio broadcasts, character letter exchange, letters to authors, different endings to stories, critiques, displays or models, crossword puzzles, filmstrips, dramatic presentations, visual timelines, puppet shows. • Allow students additional time to complete written assignments. • Allow students to take oral exams instead of written ones. • Allow students to answer fewer questions. • Allow use of a scribe.

Varying Resources, Materials, Presentation, Assignments and Assessment (cont'd)

Resources & Materials	Presentation	Assignments & Assessment
• Use computer tools such as word processors, databases, spreadsheets, graphics. • Use new book formats such as CD-ROM storybooks in which the size of text and pace of presentation can be controlled by the student. • Use CD-ROM encyclopedias which make it easy to locate information without applying skills related to alphabetical order. • Provide opportunities for students to use electronic mail to write to other students around the world. • Participate in on-line projects such as the National Geographic Kids' Network.	• Use computer simulations to demonstrate concepts and processes. • Use multimedia computer systems to illustrate and animate concepts. • Display text on a large computer monitor. Highlight words, phrases, sentences and paragraphs using the mouse. • Use computer tutorials and computer-assisted instruction to provide individual practice for students. • Use the Internet to contact a guest expert.	• Allow groups of students to collaborate to create a video to demonstrate their learning. • Allow students to use computer presentation tools to create multimedia products to demonstrate their learning. • Allow students to complete assignments and exams using computers.

A caution: Although flexibility is required to meet a wide range of student needs, research and practice indicate that effective teaching also requires some managerial consistency.

For instance,

- make consistent use of known cues such as flicking the lights or raising an arm to indicate "I'm ready to teach"
- gain control before starting a lesson
- provide only one or two directions at a time.

To assist in the selection, evaluation and tracking of variations or modifications, the following sample worksheets are provided in the appendices:

- Curriculum Modification and Student Supports: a process to guide selection (Appendix 21, page TSD.88)
- Curriculum Modification Workplan: a worksheet to assist in the selection and evaluation of modifications (Appendix 22, page TSD.89)
- Modification Planning Form: a worksheet to assist in the selection of modifications (Appendix 23, page TSD.90)
- Two Modification Process Examples: worksheets to assist in keeping track of modifications (Appendices 24 and 25, pages TSD.91–93)
- Program Analysis Worksheet (PAW): a worksheet to assist in the selection and tracking of modifications (Appendix 26, page TSD.94).

To develop a program analysis worksheet (PAW):

- list the class learner expectations on the left-hand side of the PAW
- list the type of assessment used for typical students
- determine if the student can achieve the learner expectation as it is
- determine if the student can achieve the learner expectation if the teacher adapts the presentation/ environment, expectations, materials, assistance or assessment
- list relevant IPP objectives; e.g., the student raises a hand for attention, on the right-hand side of the sheet
- the student may be working on fewer learner expectations than other students; highlight these.

Two completed program analysis worksheets are provided in the appendices. One was written for Katie and is based on the Grade 5 social studies program. The other was written for Ivan and is based on the Grade 11 CALM 20 program (Appendices 27 and 28, pages TSD.95–96).

Note: There does not have to be an adaptation under each heading on the worksheet. The fewer adaptations the student needs to achieve the learner expectation, the better.

Program Analysis Worksheet (PAW)

Name _____ Date Initiated _____

Curricular Area _____ Review Date _____

			IS IT APPROPRIATE?		MODIFICATIONS	
Class Learner Expectations highlight appropriate learner expectations	Assessment	As Is	With adapted presentation/ environment, expectations, materials, assistance, assessment	Person Resp.	Individual Objectives (IPP)	Assessment — Comments (date achieved)

See footnote reference #32 on page TSD.135.

Section III
General Adaptations and Adaptive Techniques

This section provides general and specific strategies for instruction of reading, writing, spelling and mathematics. These strategies augment those provided in Section II regarding varying time, environment, resources, materials and presentation. Also consider information in foundation strategies, Section I, when planning instruction in the core subject areas.

Language Arts

Reading

A first step with all students is actively involving them in reading and comprehending what they read. One process for involving students is outlined below. Note how the suggestions provided accommodate different learning styles. For example, role playing and the use of videotapes accommodate kinesthetic learners, the use of pictures and word analysis strategies accommodate visual learners, listening to music and brainstorming accommodate auditory learners.

- Activate students' background knowledge and prior experience.
  Suggestions:
  - use material meaningful to the students; tap into student interest
  - view pictures on the cover or throughout text
  - ask students, based on the pictures, what they think the story might be about and what might happen next
  - ask students, based on their experiences, what they think about the topic
  - use actual concrete experiences; for example, a walkabout or a field trip.

- Create common background experience.
  Suggestions:
  - view and discuss pictures, films or videos
  - listen to music, poems or stories
  - bring in a guest; have students interview the guest
  - role play, brainstorm, discuss.

- Develop comprehension of the selected reading.
  Suggestions:
  - provide guide questions
  - ask students to predict what might happen; what they based their predictions on; how accurate their predictions were and to form subsequent predictions
  - have students form visual images
  - have students retell the story; act it out using examples from the story
  - use pictures and text to make sense of the reading
  - apply sound-symbol knowledge and word-analysis strategies to aid identification of unfamiliar words in context
  - have students substitute unknown words for words that make sense within the context
  - help students recognize when reading does not make sense to them and have them ask for help
  - provide feedback which will encourage students to be risk takers.

- Consolidate students' understanding of what they have read.
  Suggestions:
  - allow varied responses to the reading, including matching pictures, making a collage, making a tape
  - categorize information in a web or map story elements
  - provide talk time
  - rewrite or retell the story changing story elements; for example, a different ending, a different character, another means of solving the problem
  - express opinions in a journal or learning log, in a newspaper article, in a debate (honour feelings and reactions; prompt for different perspectives)
  - dramatize the story or events
  - map cause/effect or comparison/contrast relationships or categorize ideas as fact, fiction or opinion
  - discuss how illustrations, title and scenes foreshadow events to come.

There are numerous supportive reading strategies. Brief descriptions of assisted reading, echo reading, choral reading, peer reading, taped reading, paired reading and bridge reading strategies follow.

Assisted reading is reading to students and having them repeat phrases or sentences. Eventually, students notice that some words occur repeatedly. At this stage, the teacher should leave out some of the words they think students know and have students fill in the blanks. Finally, students should do the reading and the teacher fills in the words the students have trouble recognizing.

Echo reading is a way of providing direct assistance. While pointing, the teacher reads phrases or sentences and the student then points and repeats (echoes) what was heard. After a session with the teacher, the student practises with a tape recorder using the same process. When the student feels he or she has mastered the reading, the student reads it to the teacher.

Choral reading is reading aloud in unison. Because it is somewhat harder to choral read than to echo, the teacher may want to preview or echo read the material. Choral reading, with the teacher's voice leading, is a good way to practise oral reading without the anxiety of a solo performance. Tapes can be used for independent practice.

Peer reading involves students getting together to choral read books in pairs or small groups. Because of previous modelling by the teacher, students tend to accept each other's miscues which creates a low risk, supportive situation. Sometimes, more mature readers will take the lead or help others. *Beyond Storybooks: Young Children and the Shared Book Experience* is a practical hands-on book for teachers working with at-risk readers in the early elementary years. It is available from the International Reading Association, 800 Barksdale Road, P.O. Box 8139, Newark, Delaware, 19714–8139.

Taped reading is valuable for familiarizing students with a story, reinforcing independent practice, helping students learn to attend and exposing students to literature. Some students learn to read stories by listening to them on tape while following the text in the book. This strategy is not particularly effective with students who do not attend to print as they listen.

Paired reading involves two students or a student and an adult. One is a skilled reader and one needs to strengthen skills. They read a passage aloud together and the less-skilled reader learns to develop a reading rhythm and to read for chunks of meaning. Over time, the pairs develop signals and the less-skilled reader can signal that he or she wishes to read alone. The skilled partner can provide help if needed. *Paired Reading: Positive Reading Practice* by Anne Brailsford, et al., a training video with accompanying manual, is available from the Learning Resources Distributing Centre.

Bridge reading provides a bridge between the student's experience with language and written language by pairing words with word pictures and gestures. It involves teaching students the left to right eye movements, to read lines from top to bottom and a sight vocabulary to give them access to beginner reading books. It helps students manipulate language by helping them build their own sentences, change other students' sentences and produce original material. The *Bridge Reading Kit* by A. Dewsbury, J. Jennings and D. Boyle is available from OISE Press, Scholarly Book Services Inc., 77 Mowat Avenue, Suite 403, Toronto, Ontario, M6K 3E3.

Writing

It is possible to read without having written but not to write without having read. Writing involves reading and rereading what is on the page. Developing effective readers is a productive writing strategy.

Another strategy with potential for reluctant writers is shared or collaborative writing. It involves the reluctant writer sharing the writing process with a teacher, another student or a group of students.

The following is a typical instructional sequence:

1. The teacher explains to the student that they will be writing a story together and that the story should sound as if it were written by one person.

2. The student and teacher discuss a choice of topic. The student decides on a topic.

3. The student contributes a first sentence. The teacher reads the sentence aloud, adds a sentence and explains how it connects to the first sentence.

4. The student and teacher alternatively contribute sentences, stopping occasionally to read the entire story before adding a sentence.

5. The student and teacher together read the completed story.

Spelling and punctuation are not emphasized in a first draft. However, the teacher models correct practice throughout the process. For example, the teacher, by correctly spelling a misspelled word from the student's sentence in his or her sentence, provides a model of correct spelling.

Some variations for consideration, depending upon the skill level of the student, include:

- the teacher writes the first sentence
- the teacher stipulates sentence complexity; e.g., only simple sentences or at least one compound sentence
- the teacher models a particular type of sentence; e.g., complex
- alternating words or paragraphs instead of sentences
- varying partners; e.g., another student, a group of students, another adult (volunteer, aide).

Consider the suggestions provided in the following two charts. The first is for assisting students with penmanship deficits or with fluency and organization problems and for providing supportive assessment. The second offers suggestions for providing assistance with word recognition.

Suggestions for Providing Assistance with Penmanship and Writing

Problem	Strategies
Difficulty forming letters	• Have students trace the alphabet for motor memory. • Make sure students are using appropriate-sized writing tools. • Anchor papers to the desk with tape or have students use clipboards. • Allow them to use newsprint, felt tip pens, magnetic letters, unlined paper or larger paper. • Provide them with access to typewriters or word processors. • Allow oral reports, dictated or tape-recorded assignments.
Fluency and organizational problems	• At first, keep writing activities brief and varied; for example, two-or three-sentence stories, a note to a friend or grandparent, a shopping list, a sentence or two a day in a journal. • Provide them with sentence starters and organizational outlines (for samples see Appendices 29–32, pages TSD.97–100). • Provide a list of transition words, such as: finally, next, first, second, after, because, if, but, in summary. • Review and post rules for capitalization and punctuation. • Generate ideas for writing: who, what, when, where and why questions. • Provide examples of completed assignments so students can see what a good product looks like. • Display the writing assignments on a board and include visual clues.
Assignments with multiple errors	• Avoid correcting every error; instead focus on one error at a time. • Place an X in the margin and have students find their own mechanical errors. • Pair students to proofread each other's work.

Suggestions for Providing Assistance with Word Recognition[4]

Problem Area	Strategies
Familiarity with letters and graphemic awareness	• Read and make up rhymes and alliterative phrases/sentences, tongue twisters. • Listen to and repeat text that plays with language. • Use alphabet games and puzzles that involve matching and naming letters. • Find letters in the text being read out loud in class lessons.
Concept of words	• Read, pointing to or unmasking words as they are read. • Find certain words, match word cards to words on a chart, frame words, circle words, point to words. • Print sentence on a strip and word cards, match the words to the sentence strip. • Cut words from the sentence strip, rearrange and read, arrange in different orders and read. • Collect students' own interest words on cards, in personal dictionaries, on tagboard strips taped on desks.
Sight words	• Match printed sight words to words in charts, books or students' own writing. • Find specific sight words in charts/stories; e.g., ask students to locate "was," have a "word of the day" that they look and listen for during the day's activities. • Add frequently used sight words and students' "interest" words to their own dictionaries or cards (personal collection); these can be used in games and referred to when writing. • Use sentence scramble — using familiar and unfamiliar words, print sentences on cardboard strips, have students cut them into words, scramble, make new sentences and read. • Encourage easy reading for enjoyment, reread stories during independent reading time. • Use repeated reading — reread the same short story or passage three times to increase fluency. • Teach students how to visualize words. • Have students write frequently. • Have games using sight words chosen from classroom reading activities for students to use: bingo, fish, memory.

[4] From *Reading instruction that makes sense* (pp. 81–91), by M. Tarasoff, 1993, Victoria, BC: Active Learning Institute Adapted and reprinted with permission.

Suggestions for Providing Assistance with Word Recognition (cont'd)[4]

Problem Area	Strategies
Context clues	• Predict and sort — predict words that may be found in a reading selection or used in a theme study, sort into categories, show relationships. • Reread stories and sing songs so the language becomes internalized (memorized), encourage "chiming-in" with familiar and repetitive language structures, expected word order and vocabulary.
Phonics	• Teach students to use phonics clues along with context clues by encouraging them to say the initial sound and last sound and to keep reading or rereading. • Demonstrate how to blend sound to approximate pronunciation of new words as they read; e.g., using letter tiles or cards, have students say the sound of the first letter as it is moved towards the next letter, and as it touches the second letter, blend that sound with the first, then extend the sound to next letter. • Do word study; e.g., match words to picture cards based on initial and final sounds, find the word in the text or book when given the spoken word, compare word families and rhyming words, sort and classify words according to spelling, make words from letters; e.g., how many words can be made from the letters "p o s t r"?
Syllabication and structural analysis	• Choose words or have students brainstorm or find words from stories, texts and their lessons. • Sort into patterns, create charts, generalize to other words as they surface in other activities, continue to search for similar words and add them to charts. • Model how to decode new words by referring to what has been discussed and studied already. • Model how to determine meaning by using roots, endings, affixes and combining forms. • Before reading a selection, brainstorm relevant words or have students scan text for new multisyllabic words, list, discuss and decode. • Use these words in other word study such as spelling lessons.

[4] From *Reading instruction that makes sense* (pp. 81–91), by M. Tarasoff, 1993, Victoria, BC: Active Learning Institute Adapted and reprinted with permission.

Spelling

Spelling, in addition to the fluency and organization skills touched on previously, is an important writing skill. A good starting point with students experiencing difficulty spelling, is to analyze the type of errors they typically make. Typical errors are categorized as follows:

- omissions and insertions
- letter substitutions
- confusions from mispronunciations
- transpositions
- doubling
- derived word endings
- homonyms
- phonetic spelling
- unclassified.

Examples of these types of errors, probable causes and suggested corrective procedures are provided in Appendix 33, page TSD.101.

Additional suggestions for helping students include:

- Carefully choose the words to teach, modifying the number of spelling words for some students. To guide selection consider:
  - words most frequently used in general communication, see Appendices 34 and 35, pages TSD.105–106
  - words most frequently misspelled, Appendix 36, page TSD.108
  - words students are motivated to know
  - words that facilitate functioning in the classroom
  - words from student's own writing.

- Use a variety of activities:
  - use computers for spelling practice and checking spelling
  - teach basic roots, suffixes and prefixes
  - teach the cover-and-write method in which the student writes the word twice while looking at it, covers the word and writes it and repeats the process
  - have students develop their own word search puzzles, making use of anagrams, scrabble and magnetic letters
  - use the tape recorder to have students practise hearing the word spelled
  - have students write the word in the air
  - use different colour markers for silent letters
  - teach some spelling rules, see Appendix 37, page TSD.110 for rules
  - encourage students to use a buddy system for proofreading each other's work
  - use visualization techniques such as having students close their eyes, visualize a picture, associate word with picture, or having students draw a picture and write letters on the picture.

- Target strategies as required:
  - if the student has a visual-motor problem, let him or her take the test orally
  - if the student has a learning disability, the visual has to be augmented through the support of other senses
  - if the student confuses letters, such as "b" and "d," the student can benefit from a multi-sensory approach using materials such as play dough, pipe cleaners and sandpaper.

Mathematics

General Strategies

Mathematics is a language with oral and written symbols that communicate mathematical ideas. Mathematics and language arts are linked and language arts strategies can be used successfully in developing and understanding mathematics. For some students, the vocabulary level of instructions and problems may be as much a hurdle as the mathematic concepts themselves. Understandably, strengthening reading skills can help students with mathematics but there are also other less-apparent connections. For instance, mathematical concepts can be enhanced by the use of number stories, counting books, role plays and the creation of books illustrating concepts such as big and little, in and out, or up and down. Additional strategies related to language usage, process and presentation follow.

To assist students who struggle with reading and writing skills:

- rewrite some of the instructions and problems in simpler language
- point out key words and explain the relationship between the words and mathematical operations; for example, "altogether" may indicate addition and "left," as in "how many left," indicates subtraction
- minimize or eliminate copying from a textbook or the board by providing handouts or having a peer help copy
- have students do mathematics on the blackboard.

To help students who have difficulty remembering general instructions and problems with spacing:

- have students repeat instructions to the teacher or a peer
- reduce the number of problems on a page
- use grid paper or paper marked off in squares
- leave instructions on the board for easy reference or provide them on a tape recorder for review as needed
- use cues such as a green line on the right side of the page to remind students where to start; or boxes, circles and lines to separate one problem from another and to help students stay within boundaries; or turn lined paper to provide perpendicular columns
- develop mnemonics or cue cards of the steps for various operations and affix these to the student's desk, or provide cue cards to students as required.

Sample Mnemonic

BEDMAS is an mnemonic to help students remember the order of operations in a multi-step equation.

- **B** brackets
- **E** exponents
- **D** division
- **M** multiplication
- **A** addition
- **S** subtraction.

Sample Organizer

Using a lattice as background for a mathematics operation can help students keep their work organized. The example below shows all the partial products for 37 X 46.

Thousands	Hundreds	Tens	Ones	
		3	7	
	X	4	6	
		4	2	= 7 x 6
	1	8	0	= 30 x 6
	2	8	0	= 7 x 40
1	2	0	0	= 30 x 40
1	7	0	2	= 37 x 46

Vary the presentation to help students with different learning needs.

Suggestions:

- use visuals and manipulatives to illustrate new or revisit old concepts; for instance, use beans, blocks and counters to teach counting; dot-to-dot, sorting boxes, cut-and-paste or touch-and-trace activities
- use real-life situations to provide word problems; for instance, how many or which coins would a student need to buy a coke and chips at the corner store?
- set up a class store, bank, post office or newspaper office and devise activities to practise mathematics concepts
- provide sample problems on charts or provide solutions on charts and tape recorders
- use colour coding; for instance, ones in red, 10s in green, etc.
- allow use of calculators

- reinforce mathematic concepts in other contexts; for instance, when students are setting up chairs, in discussions about the weather, when attendance is taken, or when measuring in cooking class or in science activities
- use games such as dominoes and Hungry Hippos (more-less)
- use cards for practising number facts and multiplication
- develop and use mathematics vocabulary
- use the computer for introducing concepts, for additional practice and for monitoring student progress. For information on integrating computers in the Division II and III mathematics curriculum see *Computer Integration Guide: Grades 4 to 9 Mathematics*, (1990): Alberta Education, Curriculum Branch.

Sample Cue Cards

Rounding Numbers (to the nearest hundred)

Procedure	Example
1. Locate the digit in the 100s place.	8̲76
2. Look at the digit to the right of the 100s digit.	8̲76 –
3. If this digit is 4 or less, the 100s digit stays the same. If this digit is 5 or more, the 100s digit is increased by 1.	9̲
4. Put zeros as place holders in the 10s and 1s place.	**900**

Rounding Large Numbers (to the nearest hundred)

Procedure	Example
1. Locate the digit in the 100s place.	374 8̲36
2. Cover the digits to the left of the 100s digit with your finger.	374 8̲36
3. Look at the digit to the right of the 100s digit.	374 8̲36 –
4. If this digit is 4 or less, the 100s digit stays the same. If this digit is 5 or more, the 100s digit is increased by 1.	374 8̲
5. Put zeros as place holders in the 10s and 1s place.	374 **800**

Strategies Linked to Specific Deficits

Specific Deficit	Strategies
One-to-one correspondence	• Have students match napkins to plates, snacks to children, dogs to bones on gameboards, etc. • Students should start with concrete materials and progress to pictures, etc.
Seriation and ordering	• Work with real items. Students can order blocks by length, buttons by size, jars by capacity, objects by weight, ribbons and strings by length. • Students can order by sight and feel, and then check and confirm by direct comparison to objects and gradually progress to comparing by measuring.
Number concept	• Use counting games, such as counting pennies as they are dropped into a jar, counting the number of times a ball is bounced. • Have students put counters on gameboards according to oral directions or to match the numeral. • Prepare a counting tape and have the student count out the appropriate amount, repetitions can be provided for easily.
Classification	• Use attribute blocks to introduce sorting by one characteristic. • Have students sort themselves according to a characteristic chosen by the teacher or student. • Have students sort collections of bread tags, keys, buttons, etc. • Tell riddles so that students can use clues to identify one from a group.
Visual spatial ability	• Have students copy simple designs made with pattern blocks, beads, etc. • Have students create a simple design on one geoboard, copy it to a second geoboard and then to geoboard paper. • Read books such as *Rosie's Talk* by Pat Kutchins and have the students show Rosie's route around a farmyard gameboard.
Problem solving	• Have students identify and extend patterns of shape and number and then create similar patterns. • Have students use diagrams, objects and counters to act out and solve mathematical problems. • Have students use reasoning and logic to solve mathematical problems involving structures such as Venn diagrams, tables and analogies. • Have students create mathematical problems from classroom and other familiar situations.

Other references:

SAIL Through Mathematics Program by Richard Skemp. The program provides games and activities for teaching mathematics concepts. The resource contains Canadian content and is available through the Learning Resources Distributing Centre.

Box Cars and One-eyed Jacks by Joanne Currah and Jane Felling. This series has six volumes of mathematics and spelling games for Grades 1–9. A French version of Volumes I-III is also available. Concepts should be taught first and then the games and activities can be used to provide a motivating way for students to practise their skills. The series is available from Box Cars Inc. Telephone (403) 440–6284.

MathWorlds, Reidmore Books, Grades 3–6, authorized by Alberta Education. The storyline of each module presents a natural series of problems or challenges through which mathematics skills are mastered. It is highly motivating and students get into character. Modules include Trading Post, The Factory, Collector's Clubhouse, Underwater World, Fire Hall, etc. It is available from the Learning Resources Distributing Centre.

Resources by Mary Baratta-Lorton published by Addison-Wesley (1–800–387–8028):

- *Workjobs* and *Workjobs II*: Each of these books has an easy-to-use format with lists of skills and materials needed, notes on how to start, illustrative photographs and follow-up ideas. *Workjobs* includes sets, number sequences, combining and separating groups, relationships, perception, matching, classification, sounds and letters. *Workjobs II* explores numbers, combinations and relationships between numbers. ECS–Grade 2
- *Mathematics Their Way*: uses a discovery and exploration approach to develop mathematics understanding. ECS–Grade 2

Section IV
Strategies by Categories of Differences

Strategies in this section are grouped according to three broad categories: learning disabilities, behaviour disorders and gifted and talented. This does not mean the strategies are only useful for students in the stated categories nor does it mean that strategies listed in other sections may not be helpful. For instance, strategies regarding varying time, environment and resources and strategies related to prosocial skills and learning styles clearly apply. Peruse the entire document to help create a unique fit among teacher characteristics, student need and the strategies used.

Additional information and strategies are provided in the following documents:

Behavior Disorders in Schools: A Practical Guide to Identification, Assessment and Correction (1986) by Alberta Education.

Teaching Students with Learning Disabilities: Classroom Strategies (to be released by Alberta Education Spring 1996) — Book 6 in the *Programming for Students with Special Needs* series.

Teaching Students Who are Gifted and Talented (to be released by Alberta Education Spring 1997) — Book 7 in the *Programming for Students with Special Needs* series.

For additional resources for special education, consult Alberta Education's *Resources for Special Education & Guidance and Counselling: an Annotated List* available from the Special Education Branch.

Learning Disabilities

General Strategies

Students with learning disabilities vary according to age, achievement level, learning style preference, behaviour and the extent to which the disability affects the student's learning. Again, like all students, these students have unique talents and areas of strength. Suggested strategies are provided in the order that this book is organized: general strategies, core area strategies and strategies tied to specific impairments.

The following are general modifications for assisting students with learning disabilities:

- provide structure and clearly stated expectations
- encourage self-monitoring, proofreading, self-correction

- allow students to tape classroom lectures or discussions and to copy or use another student's notes, or provide them with class notes; students receiving the notes are responsible for highlighting the key words, sentences and sections
- provide major assignments in written or tape-recorded format
- accompany oral classroom directions with written ones, provide directions on cassette for easy reference, repeat directions to a student and have the student explain them in his or her own words
- allow assignments to be printed, typed, written by a scribe or put on cassette; don't return handwritten work to be recopied
- provide access to computer, spell checker and calculator
- provide access to read-along notes or texts
- help a student develop study skills such as note-taking, outlining, mind mapping
- set up a buddy system
- use cross-age tutoring.

The following are general modifications for assessment of students with learning disabilities:

- provide quiet space for writing exams
- tape the questions
- provide extra time for writing tests and assignments
- focus on student's correct and acceptable work, not his or her errors
- provide opportunity for oral response on tests
- provide credit for student's participation in class
- point out reversals and transpositions of letters and numbers for correction but don't mark them wrong
- provide frequent positive feedback. It's important to attend to the student's affective needs.

Use of Tape Recorders

Because the use of tape recordings plays a significant role in the provision of instruction for students with learning disabilities, it is important to have some guidelines:

- **Edit. Edit. Edit.** Keep it simple. Avoid information overload. Simplify language.
- **Teach.** Model good communication. Provide summaries, examples or guide questions where appropriate.
- **Motivate.** Select material with the student's interests in mind. Entice with an exciting introduction or involve the student through questions and foreshadowing.
- **Facilitate.** If the student is reading along while listening, indicate on tape if sections are left out on the tape.
- **Use Volunteers.** Service organizations, seniors, students and others are sometimes willing to prepare tapes.

Reading Strategies

In addition to the strategies related to reading identified in Section III, the following suggestions may be appropriate in some cases:

- record text selections that the student can comprehend but may not be able to read
- use visual aids to present or reinforce concepts from the reading selections
- use cooperative learning, group projects or peer tutoring
- provide summaries of reading assignments
- underline key concepts in social studies, science or other texts
- make use of a reading program that has been used successfully with students who have learning disabilities. A description of one such program is provided in Appendix 38, page TSD.111.

Spelling Strategies

A list of techniques that can be used to help students spell is provided in Appendix 39, page TSD.112. In addition to strategies related to spelling in Section III, the following suggestions may be appropriate for students who have major deficits in spelling skills:

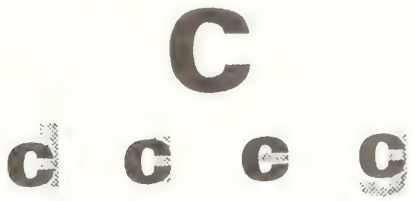
- limit the number of spelling words required
- select words that are required for success in other courses of study
- help students develop a personalized spelling dictionary
- minimize spelling as a criterion for evaluating assignments
- allow opportunity for self-correcting errors and provide opportunity for a post test
- allow students to phonetically spell words
- advise students to use a spellchecker on the computer.

Handwriting/Penmanship Strategies

Refer to strategies provided in Section III, page TSD.18. Introduce students who are dysgraphic to the computer or typewriter at the start of their schooling. In addition, consider the following strategies:

- emphasize proper posture, that is, feet on the floor and elbows supported
- teach students how to hold a pencil and to place the paper properly
- guide students through the formation of letters, allow them to trace or cut out letters, provide them with model letters, have them write on a chalkboard, write large, write in play dough and write with a long ruler in the air

- teach letters of similar strokes together; for example, *c, d, e, g, o, q*



- provide cues; for example, a red dot to indicate where a word should begin, an arrow to indicate direction

- use the concept of one finger space between words; this can be reinforced on the computer — one word, space bar, one word

- provide alphabet cue card for ready reference for students.

Proper placement of paper is particularly important for left-handed students. They often write in a manner which obscures the letters soon after they are produced. Such students never see an entire word that has been written until glancing up at a previously written line and spelling can become a problem. Have such students watch another left-handed student write with the hand under the letters. The paper must be tilted. It also helps to hold the pencil higher above the tip than a right-handed student would.

Mathematics Strategies

Strategies provided in Section III are helpful for students with learning disabilities. Some additional strategies to assist mathematics learning for students experiencing difficulty follow. Although specific examples are described, the strategies can apply to mathematics learning at different grade levels.

Focus on understanding and using patterns

Patterns are evident in mathematics at all levels. If students are given opportunities to identify and use patterns of shape and number in the early years, patterns can become a tool for examining new concepts and skills.

Simple patterns such as A B C, A B C . . . are found in skip counting by fives, or the ones, tens and hundreds of numeration. Students benefit from examining number patterns on the "Hundreds Board" or the monthly calendar.

Focus on using mathematical properties

As new concepts are introduced, students are better able to learn and apply their learning if the new concepts are related to the big ideas of mathematics such as the commutative, associative, order and distributive properties of numbers.

If students know that 2 + 3 = 3 + 2, they are able to apply this property to the set of addition facts, reducing the number of facts to be learned by half. The commutative property of number applies to multiplication facts as well.

Focus on using manipulatives or models

Students should use appropriate materials and models to help solve problems and develop an understanding of mathematical concepts and processes. Counters, geometric solids and number lines are appropriate models for students in the early years. Students working on Grade 3 or 4 mathematics concepts can use base-10 materials, money and the abacus to physically model mathematical operations such as addition or division. Models of fractions can help students understand the concept of equivalent fractions or the comparative size of fractions.

Focus on using thinking or remembering skills

Mnemonics can be used to remember procedures for complex operations. When learning the process of long division the mnemonic "Does McDonalds Sell Burgers" can be a reminder for students to divide, multiply, subtract and bring down. Prior use of materials such as counters, base-10 materials and money is necessary to develop understanding of the division process and algorithm.

Developing recall of basic addition or multiplication facts is more efficient when students focus on a small group of facts. This group of facts is associated with a remembering strategy that is the conceptual anchor as students are developing their skill. One suggested sequence for teaching addition facts is to focus in turn on doubles, doubles plus one, adding zero and one, adding nine (add 10 and take one) and then the 10 remaining number facts. The goal is for students to have recall of the facts without hesitation.

For teaching recall of multiplication facts, a sequence such as doubles, fives, perfect squares, nines and the last 10 facts can be used. A variety of games using number cards and dice can provide practice of the basic number facts. For games and activities, refer to *Box Cars and One-eyed Jacks* and the *SAIL Through Mathematics Program* described on page TSD.30.

When learning to calculate with addition or multiplication, students who do not have a good recall of basic facts can be inhibited. If these students have access to a chart of addition or multiplication facts, they will be able to focus on the new procedure they are learning.

Focus on using the calculator

The calculator, using the constant addition feature, can be used to teach the concept of multiplication as repeated addition. For example,

$5 \times 7 = 7 + 7 + 7 + 7 + 7$

It can also be used to reinforce number concepts such as place value, number properties and estimation. It provides the students with the tactile experience that accommodates the learning style of many learners in the early grades. Students can confirm their answers because the calculator provides immediate feedback.

Students can roll a die, add base-10 blocks to a set and trade if possible as they try to reach the target of 100. The calculator can be used to confirm the running total displayed by the blocks.

Some students have difficulty entering the numeral for numbers written in words on a calculator. Provide these students with numbers that spell words when the calculator is rotated. For example, *807* spells *LOB* and *55079* spells *GLOSS* when the student turns the calculator upside down. Any words made up of the letters B, E, G, h, I, L, O, or S work:

0	1	2	3	4	5	6	7	8	9
O	I		E	h	S		L	B	G

Students can develop estimation skills and understanding of multiplication (or division) of decimals by playing an activity such as "Target Numbers" where students in turn multiply (or divide) the number on the calculator display to get within one of the target.

Focus on constructing a book of definitions and examples

Many students learn more effectively if they make notes and keep written records of definitions and examples of questions solved. These learning logbooks can be used as reference when doing home assignments or studying.

Specific Impairments Strategies

A number of specific impairments and related strategies are identified by Joan Harwell in the *Complete Learning Disabilities Handbook*. The chart on the following pages represents an abbreviated list, including some modifications.

Strategies Linked to Specific Deficits[5]

Problem	Strategies
Lack of attention to visual detail	Provide a variety of comparison experiences involving careful distinction of size, shape, colour, direction, etc.
Need for diminished light on work surface, particularly with fluorescent lighting	Provide a variety of transparent plastic overlays and allow the student to select the colour that works best. Use plastic colour overlays for wall charts, alternate colours make it easier for students to find their spot when copying. Allow students to wear visors or lightly tinted sunglasses in class. Remember that light reflects off laminated wall charts making them difficult for students with visual impairments to see.
Difficulty copying accurately	Minimize the amount of copying. Have students read passages orally several times before copying. Allow students to use a "caret" (∧) to insert omitted words.

[5] From *Complete learning disabilities handbook* (pp. 92–108), by J. Harwell, 1989, West Nyack, NY: Center for Applied Research in Education/a division of Simon & Schuster. Adapted and reprinted with permission

Strategies Linked to Specific Deficits (cont'd)[5]

Problem	Strategies
Reversing letters and numbers	Focus the student's attention on the letters and numbers that are troublesome; for instance: • use pictures • sound relationships • tape a number line or letter strip on the student's desk • for b/d confusion, have the student use a fist and thumb reminder (left hand for "b" and right hand for "d" with fist facing inward) or bed strategy • for n/u reversal, say letter u is like a chin • for m/w confusion, talk of going over the mountain three times for m • practise writing letters in play dough disks made by pressing play dough or modelling clay in ice cream container lids.
Confusing words that are similar in spelling (common offenders include: saw/was, on/no, there/three, being/begin/bring, through/though/ thought)	Teach students to consider the context in which word is used and demand sense from what they read. Drill students on the most common offenders. Drill on tracking from left to right; e.g., was saw on no. → → → (say sounds in the order that they are seen) Practise troublesome words with rubber letters.

[5] From *Complete learning disabilities handbook* (pp. 92–108), by J. Harwell, 1989, West Nyack, NY: Center for Applied Research in Education/a division of Simon & Schuster. Adapted and reprinted with permission.

Strategies Linked to Specific Deficits (cont'd)[5]

Problem	Strategies
Visual figure-ground deficits	When students lose their place, use a marker, finger or eraser end of pencil when reading. When students are distracted by movement in the room, minimize movement, provide the student with a carrel/divider, allow the student to work in the hall. When students have difficulty seeing the central theme of a picture, advise them that illustrators put the central theme in the foreground; in the most prominent part of the picture. When students have disorganized workspace, provide places for all necessary belongings.
Visual closure and visual association deficits (students who have difficulty supplying a missing letter; e.g., h_lp or fr_end; student cannot supply the "e" or the "i")	Have students systematically mispronounce words with offending letters, for example "fry end" for friend so they can hear the silent "i". Have students say letters orally and use their bodies (tap head when they say "a" and touch their eye when they say "i"). Kinetic method helps some students. Have students say a word such as "blip" for fill in the blank words as they read sentence aloud. Generally they can say the correct word when they repeat sentence, for example, "The Queen had a (blip) on her head."
Visual perceptual deficits	Have students read with a finger, marker or eraser end of pencil. Highlight the most important idea in one colour and the supporting details in another. Allow student to read with one eye at a time. Allow student to rest eyes frequently. Have someone read to the student or put material on tape so the student can listen as needed.

[5] From *Complete learning disabilities handbook* (pp. 92–108), by J. Harwell, 1989, West Nyack, NY: Center for Applied Research in Education/a division of Simon & Schuster. Adapted and reprinted with permission.

Strategies Linked to Specific Deficits (cont'd)[5]

Problem	Strategies
Too many erasures	Suggest that students put a line through errors rather than erasing. Use white out (Note: Use of white out may be a health hazard for some students). Recommend that the student spend more time planning and preparing to write.
Difficulty cutting or pasting	Use glue sticks. Have students turn the paper as they go rather than hold scissors at odd angles. Use heavier paper which is easier to cut. Make use of electric scissors.
Difficulty throwing and catching a ball or jumping rope	When throwing a ball, have students keep their eyes on the ball's final destination. When catching a ball, have students keep their eyes on the ball. Remind students that jumping rope is a matter of rhythm rather than watching the rope.
Auditory processing deficits (cannot process what is said at regular speaking speed)	Repeat instructions several times, word differently, or tape record, enabling student to listen as often as necessary. Provide the information visually as well as orally. Reduce background noise. Have students repeat instructions out loud. Use a buddy system, enabling student to check specifics as required.

[5] From *Complete learning disabilities handbook* (pp. 92–108), by J. Harwell, 1989, West Nyack, NY: Center for Applied Research in Education/a division of Simon & Schuster. Adapted and reprinted with permission.

Strategies Linked to Specific Deficits (cont'd)[5]

Problem	Strategies
Auditory discrimination deficits (difficulty discriminating between sounds such as p, b, t , d, g, c, l; the vowel sounds e and i; and the final consonants m and n)	Have students practise various sounds in front of a mirror, enabling them to see the shape of the mouth when making the sound. Encourage students to watch the lips of the speaker. Provide the students with pictures as a reference; for example, drop jaw squish between teeth Show students how to place their tongue to make the "l" sound.
Auditory figure-ground deficits (normal hearing but conflicting noises make it difficult to attend to primary sound)	Support the oral with written notes on blackboard, on charts or overheads. Provide student with notes. Encourage a quiet classroom when instructions are given or new concepts explained.
Inappropriately persevering with an action; for example, laughing longer or louder than necessary	Have a cue such as placing a hand on the student's shoulder to indicate it is time to stop; fade to a soft touch, then a look.
Poor coordination of the large muscles	Provide a structured exercise program, preferably daily.
Poor sense of direction	Provide walks about school at the beginning of a school year and point out details such as the numbering system on classroom doors. Talk about directions throughout the tour and provide relationship to the total picture. Teach map-reading skills. Have the students develop a map of the school and a map of the immediate neighbourhood.

[5] From *Complete learning disabilities handbook* (pp. 92–108), by J. Harwell, 1989, West Nyack, NY: Center for Applied Research in Education/a division of Simon & Schuster. Adapted and reprinted with permission.

Strategies Linked to Specific Deficits (cont'd)[5]

Problem	Strategies
Accident prone	Train students to be aware of their surroundings by talking them through activities (ask, where is your finger? before they use a knife, scissors or saw) or setting up an obstacle course for student to walk through.
Lack of language development or experience	Provide guided experience in language and conceptual development through classroom lessons, audiovisual experiences and field trips. Model language. Do not continually question; for instance, sometimes tell students the answer and then ask the question. Use visualization and verbalization activities to check understanding.
Long-or-short-term memory deficits	Teach phonics. Have students use bypass techniques; for example, if after several tries the student cannot memorize the multiplication tables, let the student use a calculator. Have students relate new information to known or familiar information. Have students use acronyms to help with spelling. Provide many tactile experiences.

The Alberta Education document *Teaching Students with Learning Disabilities: Classroom Strategies*, Book 6 of the *Programming for Students with Special Needs* series provides additional suggestions. The document is scheduled for distribution in Spring 1996.

[5] From *Complete learning disabilities handbook* (pp. 92–108), by J. Harwell, 1989, West Nyack, NY: Center for Applied Research in Education/a division of Simon & Schuster. Adapted and reprinted with permission.

Managing Behaviours in the Classroom

The school and classroom climate have a significant impact on student behaviour. Preventing inappropriate behaviours is preferable to correcting them, so establishing a healthy climate is the logical starting point of a behaviour management strategy. This section begins with suggestions for classroom behaviour management, including examples of rules, types of positive feedback and suggestions for assessing the management plan in place. These suggestions are followed by preventative strategies, strategies for working with students with attention difficulties, as well as commonly used behaviour modification strategies.

Classroom Management

The goal is to establish a climate of trust and respect for individuals which is conducive to learning. Generally, a behaviour management plan involves the following:

- establish simple, positive expectations or rules (see Appendix 40, page TSD.113)
- ensure that students understand the expectations or rules; may include posting rules in appropriate classroom locations or role playing situations
- establish, with student input, logical consequences if the expectations are not met (common pitfalls in administering logical consequences are provided in Appendix 41, page TSD.114)
- provide positive feedback when expectations are met
- apply consequences fairly and consistently
- make use of prearranged verbal and non-verbal cues to get students' attention such as "please listen" or blinking the lights
- scan or move about the classroom to keep in touch with all students
- elicit the cooperation of peer leaders in establishing classroom climate
- examine programming variables such as pace, appropriateness of objectives and resources or variety of presentation
- vary responses depending on the cause; for example, attention seeking, revenge; or the severity; for example, breaking a rule, intimidating other students.

Positive Feedback

Natural consequences, attention and praise are often the most powerful reinforcers. Activity or tangible reinforcers might help motivate students to behave differently. When selecting reinforcers remember that they should:

- be age appropriate
- appeal to the student in question, because what is reinforcing to one student may not be to another
- fit into the ongoing classroom and school program as much as possible
- be used when expectations are met; praise is most effective when tied to feedback regarding performance on a specific task.

Consider asking the student what he or she feels is an appropriate reinforcer, or allow the student to select from a teacher-compiled list. Examples of statements of praise and encouragement, of natural reinforcements including activities and of tangible reinforcements are provided in Appendix 42, page TSD.115.

The following questions can be used to help assess the behaviour management plan in place. They are based on questions suggested by Vernon Jones[6] in an article entitled *Assessing Your Classroom and School-wide Student Management Plan.*

- Does the plan treat students with dignity?
- Does the plan include opportunities for students to learn new skills, to acquire a repertory of acceptable responses to frustration, teasing, etc.?
- Are the consequences appropriate to the violation?
- Does the plan include periodic reviews or allow for the review of programming (including seating arrangements) that may be contributing to behaviour problems?

Preventative Strategies

The emphasis is on rational, non-judgmental, low-key responses. Try to maintain a positive attitude and avoid reinforcing attention-seeking behaviour.

Some tips include:

- Listen to what the student is really saying.
- Ignore challenge questions (suggestions for preventing escalation and an example of how behaviour is escalated follow these tips).
- Intervene early by focusing on the problem, not the student.
- Use non-threatening verbal and non-verbal clues to let students know their behaviour is getting out of hand; for example, make eye contact, move next to the student, or calmly mention a name.
- Allow the student to move to a less-taxing task or to leave a group or the room.
- Prepare students for changes in routine or transitions from one activity to another.
- Gear actions and responses to knowledge of a student; for example, respect personal space, be aware of body language clues, permit some verbal venting.
- Check your own emotional state and responses.
- Use humour.
- Work at understanding the behaviour and its root cause.
- Teach skills of listening, organization, following direction, responding, etc. A checklist is provided in Appendix 43, page TSD.116.
- Make certain a student does not lose face. For instance, talk to the student quietly and privately rather than in front of peers. See Appendix 44, page TSD.117 for a behavioural interview process.

[6] From "Assessing your classroom and school-wide student management plan," by V. Jones, 1993, *Beyond Behavior, 4*(3), pp. 9–12. Adapted and reprinted with permission.

Prevent Escalation of Acting-out Behaviours

The responses a teacher provides can, on occasion, exacerbate rather than diffuse a situation. Geoff Colvin, in "Managing Acting-Out Behaviour," emphasizes the importance of identifying the steps leading to escalated behaviour, of anticipating the student's response and providing a different response, of helping the student manage frustration or agitation and gain self-control and finally, of teaching the student alternative behaviours to replace his or her inappropriate ones. A slightly modified example of a chain of escalated behaviour from Colvin's article follows.

Chain of Escalated Behaviour[7]

Teacher	Student	Behaviour
Michael you need to start on your assignment.	What assignment?	Questions
The work you didn't finish during class.	I did finish it.	Argues
Well let me see it then.	I don't have it now.	Continues to argue
You will either have to do it again or show me it.	I am not going to do it twice. It's not fair.	Does not comply
You will have to do it now.	Make me.	Defies
If you don't do it now you will have to do it in detention.	F___ you.	Is verbally abusive
That's disrespectful. Office referral.	Throws books on floor; pushes desk over; says I am going to kill you.	Intimidates
That's it.	Grabs the teacher by the wrist, swings at the teacher.	Is physically abusive

[7] From "Managing acting-out behavior" (p. 81), by G. Colvin, 1992, *Presenter's papers*, Victoria, BC: Focus '92 Conference: integration a shared belief. Adapted and reprinted with permission.

Instead of getting into a power struggle, defuse the situation. Suggestions include:

- Withdraw from the conflict; ignore the challenge and discuss the substantive issue with the student at another time when conditions may be more conducive to resolution; for example, incomplete assignments can be discussed with the student in the context of an assessment or report card interview.

- Always offer a choice; for example, do you want to work on the outstanding assignment over lunch break or after school? Come in early tomorrow to finish it or complete it at home tonight and bring it in.

- Shift responsibility; for example, I would be happy to help you with your assignment when you are ready to work on it. Remember it is worth 25 per cent of your course grade.

- Make use of humour, make eye contact.

- Be aware of the tone, volume and cadence of your voice; use a calm approach, keep the volume down.

- Be aware of body language; that is, don't encroach on a student's personal space or take an aggressive stance.

The following are commonly used strategies to modify behaviour.

Behaviour contracts or structured reinforcement programs involve written agreements between a teacher and a student and sometimes include an aide, the principal and a parent. Contracts should only be used when the student has a desire to change his or her behaviour and all involved in the contract are willing to cooperate. The contract should target a specific, short-term objective rather than a long-term goal. Steps in establishing a contract include: arranging a meeting with all parties, selecting the specific objective to be targeted, describing the behaviour in precise terms, identifying rewards for demonstrating the target behaviour, writing the contract, getting everyone to review and sign the contract and agreeing when it will be reviewed.

Token or point systems can be simple or complex depending on the age and functioning level of the student. Such systems are most effective when used to correct behaviour related to rules and procedures. As with contracts, a short-term, specific objective such as staying in one's seat should be targeted and precisely described. The student receives a token or point each time he or she performs the target behaviour and the tokens are exchanged for an agreed upon reward. You should discuss with the student what reward he or she is willing to work toward. For instance, a student may wish to be on a school sports team or watch T.V. for a half hour on school nights (see Appendix 42, page TSD.115 for other suggestions). Finally, agree upon the number of tokens or points required to obtain the reward.

For more information, see the subject heading Behaviour Disorders in *Resources for Special Education and Guidance and Counselling: an Annotated List*, from the Special Education Branch, Alberta Education.

Attention Deficits

It is important to know that students with attention difficulties are not wilfully inattentive. It takes inordinate effort from some of these students to keep themselves on task. Some may be impulsive and misread instructions, skip or substitute words while reading, misspell words they can spell correctly or make simple mathematical errors. They may exhibit academic delays. Strategies listed earlier under Learning Disabilities also apply to these students. For more information, see *Teaching Students with Learning Disabilities*, Book 6 in the *Programming for Students with Special Needs* series. Book 6 will be available Spring 1996 from the Learning Resources Distributing Centre.

Developing a profile for each student who exhibits attention deficits is a starting point for selecting programming and behavioural strategies. The chart on page TSD.48 lists some strategies.

Attention Deficits

General Strategies	Specific Strategies
Provide structure, order, routine and consistency. These students benefit from a structured classroom environment. This does not mean the teacher should assume total control, rather, find a balance between structure and independence. Exploit the physical aspects of the classroom; for example, seat the student nearby to minimize distractions from other students. Do not place the desk next to a high traffic area such as a window or door. Help the student organize his work space. Recognize the intent of the communication and respond to it. Model and teach appropriate forms of communication. Provide students with the words and behaviours they need in particular situations. Recognize that short, concentrated work periods are more productive than longer time spans. Consider dividing tasks into smaller units. Use a multi-sensory approach; for example, use pictorials or diagrams for concepts. Establish realistic expectations for achievement and organizational skills. Use a variety of assessments; for example, oral tests and multiple choice tests. Prepare students for transitions and changes in routine.	Provide positive feedback as often as possible but do not ignore inappropriate behaviour (unless ignoring is planned and this behaviour is not the target). Provide appropriate, consistent and immediate rewards for specific behaviours. Use a variety and combination of rewards. Avoid excessive verbal directions. Review instructions, pair verbal directions with visual cues. Check for comprehension. Help the student get started with his or her work. Provide periods of physical activity between tasks to absorb restlessness; for example, have the student run an errand, clean the blackboard, put up charts. Give permission to move between activities. Provide extra time for the student to complete tasks. Develop some prearranged private cues to enable the student to signal the teacher privately if he or she needs assistance with directions. Help the student make use of organizational aids such as calendars, checklists, homework books and note-taking strategies. Review these with the student regularly. Help students develop self-monitoring skills; for example, using a finger to keep his or her place in reading, rechecking mathematics problems, checking off each step in the completion of an assignment.

Gifted and Talented

All students have strengths and gifts and should be provided opportunities to demonstrate their highest level of achievement in all curricular areas. However, some students, by virtue of outstanding abilities, are capable of exceptional performance. These gifted and talented students may demonstrate achievement and potential in one or more areas:

- general intellectual ability
- specific academic aptitude
- creative or productive thinking
- leadership ability
- psychomotor ability
- visual and performing arts.

Giftedness may appear in conjunction with other educational or emotional needs such as learning disabilities, behaviour disorders, attention deficits or motor difficulties.

Principles and strategies for modifying programming follow. Consider strategies from other sections as well. Conversely, consider the strategies provided here for other students.

Modifications to programming should:

- be planned and sequentially organized to include specific expectations for growth and development
- be matched to the learning needs of students by building on mastered skills and knowledge
- be broad-based and interdisciplinary to allow for in-depth exploration of concepts
- teach and develop productive thinking skills to encourage reconceptualization of knowledge
- provide learning experiences which encourage problem-solving abilities so that students can move beyond "what is" to "what could be"
- incorporate primary and secondary sources of information as well as numerous technologies
- allow for some individualization, self-selection and self-evaluation to accommodate individual interests and abilities
- incorporate student involvement in planning, selecting, designing and evaluating units of study
- allow for flexible pacing in keeping with the demonstrated needs and abilities of students
- place an emphasis on the integration of cognitive, social and affective competencies within the curriculum experiences
- allow students opportunities to engage in leadership experiences to acquire effective communication and interpersonal skills in group problem-solving situations
- reflect real audiences, issues, problems, themes of substance and meaning to students.

As demonstrated in Section II, varying time, resources and instruction enables programming to be tailored to meet individual needs. Some strategies and sample activities are provided. The length of time it takes a student to master a curriculum area or the time a student can afford or wishes to devote to a curriculum area may vary considerably.

Varying Time and Pace

- Provide experiences earlier.
  Sample activity: completes primary or junior high school mathematics in two years.

- Compact time required for learning experience.
  Sample activity: the time to cover a unit on creative writing is compacted, freeing time to work on a short novel of three chapters.

- Shorten the introduction and practice of skills to provide more time for application.
  Sample activity: decreased practice time in constructing and interpreting picto and bar graphs can be used to create a board game using coordinates.

- Delete the time to cover skills already mastered.
  Sample activity: pretest knowledge of basic facts. Students with mastery can move on to consumer mathematics problem solving. Students proficient in numeration can explore computation using Roman or Mayan systems.

- Provide longer periods of time for individual pursuits.
  Sample activity: the student contracts time to pursue an individual investigation of the sun dial during the class study of time.

- Use flexible scheduling to allow time to work on material at individual levels and pace.
  Sample activity: a student in Grade 2 moves to the year three learning group to work on a science project on the properties of matter during the class study of sink and float.

Varying Complexity of Skills and Content

The content and skills of learning should be more elaborate and complex, and allow for greater depth and breadth of study.

- Integrate high-level thinking processes into content.
  Sample activity: the student pursues the application, analysis, synthesis or evaluation questions on the topic of Ancient Greece. He or she compares characteristics of gods in Greek mythology to gods in Roman mythology and assesses what role gods serve in meeting needs.

- Apply knowledge derived from one discipline in a new area of study.
  Sample activity: knowledge of mathematical patterns can be applied to identify patterns in natural forms, such as shells, waves or flowers. Explore how mathematics is applied to create music.

- Relate learning across disciplines.
  Sample activity: the student extends a study of dinosaurs to one of extinction and investigates the extinction of other animals, endangered species, fads, fashions and music.

- Identify unresolved issues within an area of study.
  Sample activity: examine the issue "Is genetic engineering necessarily harmful" or "Is nuclear power an acceptable risk?" Identify assumptions related to the issue, debate alternative viewpoints, choose a position, build a case to support the position and relate evidence to back the argument.

- Identify unsolved problems within an area of study.
  Sample activity: during a study of Canadian natural resources, the problem of resource depletion could be explored. Gather evidence, propose and carry out a solution.

- Discuss the differences between an issue, theme and problem related to a topic.
  Sample activity: categorize newspaper headlines on a topic into issues, problems or themes. Discuss differences.

- Develop an understanding of underlying concepts, generalizations, principles and theories in a content area.
  Sample activity: a math student researches the history of computing from pebbles to abacus, to calculator, to the present day computer to determine basic principles of a computing system. The student develops new or reconceptualized generalizations and compares or contrasts or explores theories related to time and space continua; e.g., Einstein's paradox of the twins.

- Expose the student to conflicting ideas of the past, future and present to extend and deepen understanding.
  Sample activity: research a section of the Canadian Constitution, the reasons for its inclusion and propose changes for the benefit of today's Canadian society.

- Create opportunities to acquire and apply the basic underlying premises of a discipline.
  Sample activity: research famous scientists and others doing experimental research to identify key aspects of the process.

- Create or generate something new in an area of study.
  Sample activity: survey the community to determine the factors of local pollution. The results are presented in brochures delivered to residents.

- Transfer skills and knowledge into forms considered innovative by criteria set by persons with expertise in a field.
  Sample activity: the student with an interest in architecture pursues the solving of an architectural problem. Through guidance from a mentor, a model construction is built and evaluated.

- Opportunities to explore the frontiers of knowledge.
  Sample activity: the student with computer expertise is given opportunities to research new development, plan and develop a new computer program.

- Understand the role perception plays in the analysis and interpretation of issues and how a personal point of view is developed.
  Sample activity: explore the issue "Are we more independent today than we were 100 years ago?" Take a position on the issue and examine and compare the role of background in determining a point of view.

- Delve into current and local events or real-life problems.
  Sample activity: the student interviews victims of a fire to determine the loss. Decisions are made as to what help the group can contribute.

- Explore ethical and moral issues
  Sample activity: the student determines the best course of action in the following dilemma: the student's friend steals four chocolate bars. His family is poor and the bars are for his sisters. What is the right thing to do?

Varying Resources and Materials

Learning experiences should encourage exposure to, and selection and use of, a wide range of appropriate and specialized resources.

- Extend level and type of resources.
  Sample activity: the student writes to a college professor for information on holography. Other resources could include city and university libraries, the yellow pages, community surveys, individual, personal or telephone interviews and the use of community experts. Review a range and variety of print and non-print resources and analyze for bias and underlying assumptions.

- Recognize relationships and discrepancies between informational sources.
  Sample activity: introduce the various methods by which information is cross-referenced including an index, card catalog, encyclopedia article and a computer index. Gather information from more than three sources in a research project.

- Access and compare data gathered from primary, secondary and tertiary sources.
  Sample activity: chart and compare data gathered on the extinction of the dinosaur. Evaluate the value of information which can be gathered from a fossil, a fossil rubbing, an anthropologist's diary, a journal article and a friend's report.

- Gather information in unusual places.
  Sample activity: identify aesthetic qualities at a wrestling match. Gather data on physical fitness at a symphony performance.

- Develop skill to use advanced information systems technology.
  Sample activity: access information from a laser disc and a specialized library collection.

- Develop the skill and procedures to identify and use the services of an expert in a field.
  Sample activity: interview an employee of Canada Post to gather information on improving the postal system.

- Acquire techniques specific to investigating a particular field of knowledge.
  Sample activity: use the case study experimental approach to gather information on the issue "Must you be a friend before you have one?"

- Provide opportunities for information gathering beyond the school.
  Sample activity: the student interested in a law enforcement job shadows a policeman.

- Provide advanced resources and materials.
  Sample activity: the student participates in an independent reading program. Literature selections at higher levels are available and individualized follow-up activities are planned.

Varying Nature and Kind of Instruction

Instruction should promote self-understanding and self-directed learning and growth.

- Allow student needs and interests to dictate areas of independent study (see Appendix 45, page TSD.120).
  Sample activity: the student develops self-directed questions and activities on the topic of architecture. Findings are shared with the class and a local architect.

- Have the student pursue the study of attitudes, humaneness, self-understanding, personal and group dynamics.
  Sample activity: the student develops a profile of famous people with common traits and identifies those he or she aspires to possess. Describe why these traits are important. What can be done to develop them and what sacrifices must be made to attain them. How do these traits relate to curricular content; e.g., interdependence?

- Have the student undertake a study where the student has greater involvement in planning and time management (see Appendices 46 and 47, pages TSD.121–122).
  Sample activity: the student plans a procedure for a research project including the collection and organization of data, summarizing and presentation of findings and an evaluation of the process. Activities are recorded on a daily time log.

- Help the student understand self as a learner, developing insights into strengths, interests and learning preferences.
  Sample activity: the student analyzes a learning preferences inventory he or she has taken and applies the findings to a research project.

- The student explores his or her capacities and preferences for group and individual tasks.
  Sample activity: compare a learning log completed during an individual task with one completed during a group project. Formulate and reflect on the findings.

- Provide opportunities for the student to interact with others who share similar abilities and accomplishments
  Sample activity: students across grades who excel at and are keenly interested in mathematics become involved in creating a mathematics competition or conference for the school.

- Encourage a broad range of student products that challenge existing ideas and match the message to the audience (see Appendix 48, page TSD.123).
  Sample activity: the student depicts a self-selected concept in one of the following unusual forms: jingle, easy book, postcard, mathematics problem, bumper sticker, greeting card, or recipe and shares and evaluates the product.

- The student develops the skills necessary for critiquing his or her own performances and products and those of others.
  Sample activity: the student develops an evaluation form and criteria for a research project. Input is gathered from self, peers, teacher and another adult, and compared. A final personal summary evaluation statement is written.

- The student participates in roles of leadership and fellowship.
  Sample activity: a student in Grade 5 social studies organizes a classroom council election.

Many of theses strategies can be used with a wide range of learners, but students who are gifted and talented may be able to participate earlier and to a greater extent because of their abilities. For organizational options which can be used flexibly, see the chart provided in Appendix 49, page TSD.124.

For more information, see *Teaching Students Who are Gifted or Talented*, Book 7 in the *Programming for Students with Special Needs* series. Book 7 will be available from the Learning Resources Distributing Centre, Spring 1997.

Section V
Strategies in Context

Strategies, even the best of strategies, must be matched to student and teacher characteristics and curriculum expectations to have an impact on learning. A strategy that may calm one student with a behaviour disorder may send another student into a rage. A strategy utilized by a teacher with strong dramatic skills may be unsuccessful when utilized by a teacher whose strengths lie elsewhere. A strategy designed to encourage attitude change may or may not be useful in helping students acquire a new skill.

A strategy may provide for more than one learner characteristic. For instance, a strategy such as self-pacing may be used successfully with students who learn quickly and those who progress slowly.

A student may require variations in time, resources and instruction in one curriculum area but not in another; e.g., a strategy that works in language arts may or may not be applicable to social studies. By using multi-modal strategies, teachers can engage the visual, auditory and kinesthetic learners.

A number of suggestions for viewing strategies in context and for programming follow. The chart on page TSD.56 looks at programming implications based on selected student characteristics.

Programming Suggestions Keyed to Student Characteristics

Student Characteristics	Programming Implications
different developmental level	• identify student strengths and interests (see Appendices 50–52, pages TSD.126–129) • select appropriate curriculum expectations • create student-specific indicators of achievement
different rates of learning	• flexibly introduce specific curriculum expectations based on the pace at which the student is able to succeed • use flexible timing, frequency and duration of instruction, practice and application of learning
different economic, ethnic, linguistic or experiential background	• demonstrate respect for differences • use common school and community-based experiences and discussion supporting curriculum expectations • use multiple first-hand experiences • provide opportunities to share personal knowledge, skills and traditions • provide opportunities to identify the contributions of different peoples within the curriculum
different learning styles	• provide frequent opportunities for student choices about what will be learned next, and where, when, how and under what conditions learning will occur • use multiple modes of presenting, gathering, organizing and sharing information • use multiple ways of assessing, evaluating and communicating achievement and growth
different abilities in different curriculum areas	• make use of strengths and interests in different courses of study • check major discrepancies • use different expectations and programming in different areas as appropriate

Programming Suggestions Keyed to Student Characteristics (cont'd)

Student Characteristics	Programming Implications
different perceptions of self as learner	• provide curriculum support and support on a personal level for the student's unique cognitive, social, emotional, physical and ethical growth • adapt indicators of achievement to maximize the student's opportunity to demonstrate what has been learned • provide multiple opportunities for success and challenge • use various themes to provide a context for learning and vary the requirements • periodically review the curriculum expectations selected for the student • provide confirmation of student achievement and growth
different parental aspirations	• provide ongoing communication • use joint short-term planning to identify appropriate curriculum expectations and programming strategies • use case conferencing as necessary • use joint long-term planning within the curriculum with flexible alternatives clearly identified

- Cross-reference all aspects of programming: the nature of the student, evaluation, curriculum expectations, organizational and instructional strategies, assessment and communication with curriculum areas. It is one way of pulling together learner characteristics, goals in an individualized program plan and organizational, instructional and assessment strategies. Identifying strengths and weaknesses by curriculum areas may indicate that a student is in need of adaptations in only one or two areas rather than all. A cross-referencing chart is provided in Appendix 53, page TSD.130.

- Use Bloom's taxonomy as a tool for varying both assignments and assessments based on the student's ability to demonstrate knowledge, skills and attitudes. The teacher can build a lesson or series of lessons around a single theme, such as space, dinosaurs, travel, the Olympics, survival, extinction, relationships or patterns, but have assignments and assessments of varying levels of complexity. The assignments and assessments can focus on different levels of thinking skills: knowledge, comprehension, application, analysis, synthesis, evaluation or some combination of these.

- Use a modified idea from *Adapting Instructional Materials for Mainstreamed Students* by Jane Burnette.[8] It involves identifying the goal or goals to be achieved, enabling steps and a range of strategies. From this matrix the teacher can select enabling objectives and strategies for a specific student. An example is provided in Appendix 54, page TSD.131.

- Start with a curriculum outcome and related activities, basic proficiencies to be acquired or practised, and any adaptations required to help all students demonstrate the outcome. An example is provided in Appendix 55, page TSD.133.

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[8] From *Adapting instructional materials for mainstreamed students. Issue Brief 1* (ERIC/SEP Special Project on Interagency Information Dissemination) (p. 11), by J. Burnette, 1987, Reston, VA: Council for Exceptional Children. Adapted and reprinted with permission.

Section VI
Appendices

Teaching Follow-up[9]

Name: _____ School: _____

Lesson/Subject: _____ Date: _____

1. Successes Experienced	*2. Problems Encountered*
3. Possible Revisions	
4. Critical or Interesting Incidents	
5. I shared this lesson with . . .	

[9] From *Cooperative learning: where heart meets mind* (p. 293), by B. Bennett, C. Rolheiser-Bennett and L. Stevahn, 1991, Toronto, ON: Educational Connections. Reprinted with permission

Teaching Follow-up[10]

Sample Questions

Name: _____ School: _____

Lesson/Subject: _____ Date: _____

1. Successes Experienced	*2. Problems Encountered*
• What worked well?	• What frustrated you?
• What pleased you?	• What was problematic?
• How did students evidence success?	• Describe any disappointments.

3. Possible Revisions

- What changes would you make if you were teaching this lesson again?
- What revisions would deal specifically with the problems you encountered?

4. Critical or Interesting Incidents

- What was unexpected?
- What intrigued you?
- What questions were raised in your mind?

5. I shared this lesson with . . .

Collaborating with others promotes growth in implementing cooperative learning.

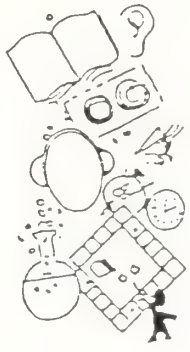
- Who can you share your successes with?
- Who can you problem solve with?

[10] From *Cooperative learning: where heart meets mind* (p. 294), by B. Bennett, C. Rolheiser-Bennett and L. Stevahn, 1991, Toronto, ON: Educational Connections. Reprinted with permission.

Learning Preferences[11]

There are different ways to learn. Indicate your preference by placing a number in the circles: 1 = Always, 2 = Sometimes, 3 = Seldom.

I PREFER LEARNING BY:



- ○ reading books and magazines
- ○ listening to a person talk or a tape recorder
- ○ watching people do things
- ○ watching films, TV or movies
- ○ putting things together and taking them apart
- ○ experimenting with things
- ○ playing a game
- ○ acting it out

I PREFER WORKING:

- ○ alone
- ○ with an adult
- ○ for a long period
- ○ in the morning
- ○ with a friend
- ○ in a group
- ○ for a short period
- ○ in the afternoon
- ○ in the evening

I PREFER SHARING BY:

- ○ telling about it
- ○ building something about it
- ○ acting it out
- ○ writing about it
- ○ drawing or painting about it
- ○ talking to other people about it

[11] From *Academic challenge: a programming guide* (p. 3:35), by Edmonton Public School District No. 7, 1988, Edmonton, AB: Edmonton Public School District No. 7. Reprinted with permission.

Learning Channels Inventory[12]

Place the numbers 1, 2 or 3 in the box after each statement that best indicates your preference.

(3 = Often, 2 = Sometimes, 1 = Seldom)

1. I can remember something best if I say it aloud. ☐
2. I prefer to follow written instructions rather than oral ones. ☐
3. When studying, I like to chew gum, snack and/or play with something. ☐
4. I remember things best when I see them written out. ☐
5. I prefer to learn through simulations, games and/or role playing. ☐
6. I enjoy learning by having someone explain things to me. ☐
7. I learn best from pictures, diagrams and charts. ☐
8. I enjoy working with my hands. ☐
9. I enjoy reading and I read quickly. ☐
10. I prefer to listen to the news on the radio rather than read it in the newspaper. ☐
11. I enjoy being near others. (I enjoy hugs, handshakes and touches.) ☐
12. I listen to the radio, tapes and recordings. ☐
13. When asked to spell a word, I simply see the word in my mind's eye. ☐
14. When learning new material I find myself sketching, drawing and doodling. ☐
15. When I read silently I say every word to myself. ☐

In order to get an indication of your learning preference, please add the numbers in the boxes together for the following statements.

Visual Preference Score	2 ☐	4 ☐	7 ☐	9 ☐	13 ☐	= Total _____
Auditory Preference Score	1 ☐	6 ☐	10 ☐	12 ☐	15 ☐	= Total _____
K/T (Kinesthetic/Tactual) Score	3 ☐	5 ☐	8 ☐	11 ☐	14 ☐	= Total _____

The highest score indicates that my learning preference is _____

Now that I know which is my dominant learning style I can learn better by _____

[12] From "Learning Channels Inventory," by Max Coderre. (Sherwood Park). *Teaching Today Magazine*, c/o Edmonton, AB: Second Impressions Magazine, 12644 – 126 Street. Reprinted with permission.

Learning Styles: Teacher Observation Checklist[13]

Sound:

___ Does quality work during quiet work time
___ Does quality work during regular work time
___ Does quality work with music in background
___ Complains when there is too much sound
___ Has difficulty remaining quiet during quiet work time
___ Makes sounds or noises while working
___ Reminds others to be quiet while working

Classroom Design:

___ Has difficulty sitting properly
___ Enjoys lying down while listening to stories
___ Sits correctly during work periods
___ Stands by work area during work periods

Structure:

___ Likes to complete projects independently
___ Likes to complete projects step by step
___ Keeps work area neat
___ Tends to misplace supplies

Social Tendencies:

___ Likes to work or play with a group
___ Likes to work or play with a teacher nearby
___ Likes to work or play alone
___ Creates opportunities to visit with teachers

Responsibility and Persistence:

___ Completes projects quickly and neatly
___ Completes projects quickly but not neatly
___ Completes projects slowly and neatly
___ Completes projects slowly but not neatly
___ Does not always complete projects
___ Works best when given specific instructions
___ Cleans up work area on completing task
___ Needs reminding to clean up work area
___ Is easily distracted while working on a project
___ Remembers assignments

Mobility:

___ Leaves chair frequently during work periods
___ Often makes excuses to move around the classroom
___ Is extremely active during free play periods

Motivation:

___ Works best with much assurance from others
___ Needs teacher feedback while working
___ Works best when allowed to be creative
___ Initiates projects
___ Volunteers information about projects and discussion topics

Perception:

___ Enjoys books and filmstrips
___ Is attentive during story time
___ Likes to hear records or tapes during work time
___ Remembers what others say
___ Likes to visit classmates
___ Enjoys playing with toys with small pieces
___ Likes to draw or doodle
___ Likes to move around during work or play
___ Likes to create and react to play situations

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[13] From "Empowering students with style," by R. R. Neely and D. Alm, 1993, *Principal*, 72(4), p. 33. Reprinted with permission

Perceptual Preference Inventory[14]

Kinesthetic Learner	Visual Learner	Auditory Learner
• likes doing things with hands • points finger when reading • looks confined in the classroom • responds physically when listening to a story • often drops things, squiggles in the desk or takes frequent jaunts • likes to set up equipment • touches to get attention • stands closer to the person he is talking to than most people do • responds to physical touch • feels everything • rubs hands along wall while in lunch line or walking down hallway • puts hands on door frame, touches desks while moving down the aisle • is well coordinated — good at sports • frequently uses fists • likes to write on the blackboard • takes extensive notes during lectures	• chooses a book for its pictures or illustrations • likes orderly, attractive, neat surroundings • sees details — errors on board or typing, missing buttons, scruffy shoes • remembers where objects are located, what is seen • organizes by size, colour or other visual clues • would rather read than be read to • doodles or draws with great detail • likes to assist with displays, bulletin boards • pictures have good balance • finds phonics difficult unless a picture accompanies sound • has difficulty with verbal directions • watches speaker's face intently • rarely talks in class • responds in as few words as possible	• tends to chatter or make other noises • likes phonics — spoken language is easier than written • tells jokes, uses humour • good story teller • tends to talk to self aloud • knows all the words to songs, slogans, jingles • can easily memorize • poor handwriting, history of reversals • requires oral interpretation of charts, maps, diagrams • says material to self in order to learn it • likes to discuss what needs to be done • transmits messages accurately • likes rhythmic activities

[14] From *Teaching through modality strengths: concepts and practices* (pp. 44–45), by W. B. Barbe and R. H. Swassing 1979, Columbus, OH: Zaner-Blower Inc. Reprinted with permission.

Primary Learning Modality: Observable Behaviours[15]

Kinesthetic Learner	Visual Learner	Auditory Learner
• learns by doing, direct involvement • does not enjoy reading or being read to • images do not occur unless movement is involved • does not attend to visual or auditory presentation • fidgets, tinkers, touches, feels, manipulates, puts things in mouth • is physical with emotion (can be a problem, touching, standing too close, bothers others) • reads laboriously • has poor language development • neither looks nor listens • often seems absorbed by some inner life or thought — oblivious to surroundings	• learns by seeing — watches to see what others do • likes demonstrations • recognizes words by sight — calls rabbit "bunny," laugh "funny" • often relies on initial consonants and configuration of words • likes descriptions • has lively imagination (daydreams, doodles), visualizes, thinks in colour, pictures show much detail • notices changes quickly • notices colour — movement (this can also be distracting) • remembers faces more often than names • takes notes • has good handwriting • tends to be deliberate, plans in advance, organizes, thinks through problems • when in new situation, tends to be quiet, observant • is neat, meticulous • prefers art to music • sees detail or components (may miss seeing work or work as a whole)	• loves noise, makes noise • enjoys talking, listening • when reading, vocalizes (moves lips, whispers, reads aloud to self) • tends to use phonics • remembers names more often than faces • is receptive, expressive, vocabularies are well developed for age (this can become a deficit if student does not listen during instruction) • is easily distracted by sound • talks problems out, tries out solutions verbally • expresses emotion verbally (laughs out, shouts out) • choice of clothing sometimes poor — no sense of what goes together • prefers music to art

[15] From *Complete learning disabilities handbook* (p. 41), by J. Harwell, 1989, West Nyack, NY: Center for Applied Research in Education/a division of Simon & Schuster. Reprinted with permission

Modalities: Some Applications[16]

One of the ways teachers can begin to accommodate learning differences is by planning lessons/units to accommodate the different ways students learn.

Think about a skill, concept or process you will teach during the coming week and complete the following:

1. a. Identify and record what the intended learning will be.

   _____

   b. Write out an objective for your intended learning.

   _____

2. a. Briefly explain how you will introduce your lesson.

   _____

   _____

   b. Go back and look at your introduction. Did you accommodate visual, auditory and kinesthetic learning modalities equally? If not, prepare what you might say or do to adjust your introduction.

   _____

   _____

   _____

3. Brainstorm for activities you will include in your lesson to accommodate a variety of learning modalities.

Visual Activities	Auditory Activities	Kinesthetic Activities

4. Generate alternative ways to evaluate for modality accommodation within your lesson.

Visual Evaluation	Auditory Evaluation	Kinesthetic Evaluation

[16] From Edmonton Public School District No. 7. Reprinted with permission

Prosocial Skills Lesson Plan for Elementary
Making Good Decisions[17]

Set

Begin the lesson by discussing with students the kinds of situations that require them to make decisions. It is important to relate the discussion to issues that students might be facing in their lives. Elementary students need to consider the decisions they make on a daily basis regarding the friends they choose and the types of behaviours they exhibit in certain situations. Situations you may want to make them consciously aware of are: who they choose as friends, what they do in their spare time, how they behave toward their parents and how they behave toward their teachers. The purpose of the discussion is to demonstrate how many decisions students make each and every day of their lives. The consequences of their decisions can impact on them positively or negatively based on their ability to make appropriate decisions. Once students have their attention focused on decision making and are beginning to see its value, then move on to the decision-making strategies.

Definition

Define the strategies for good decision making. Using the overhead projector, list the strategies and talk about each of them.

Strategies

- Ask yourself if your decision could hurt you either inside or outside.
- Ask yourself if your decision could hurt others either inside or outside.
- Ask yourself if your decision could damage anything.

The visual representation on the overhead projector is important to enable students to refer to the strategies on an ongoing basis. If students suggest alternative strategies, accept them and add them to the list.

Brainstorm

Brainstorm and record on a chart all the situations and places students need to make decisions. This list will provide a repertoire for future modelling and role-play scenarios. The list should be student generated so the scenarios are meaningful and relevant to their lives.

Modelling

Demonstrate for students how to go about making a decision regarding a situation at home or at school. An example might be deciding who to play with or what to play at recess time. Model an example of positive decision making (choosing to play an

[17] From Edmonton Public School District No. 7. Reprinted with permission

appropriate game at recess) using the above strategies. Using self-talk, demonstrate the decision-making strategies used. You want students to observe the use of self-talk so they can appreciate its purpose in monitoring behaviour.

Demonstrate an example of negative decision making (choosing to play an inappropriate game at recess) using the strategies ineffectively. This demonstrates how an outcome of a situation can be very different based on whether a good or a bad decision is made.

Role Play

Ask students to form pairs. Have them decide on a situation they could role play to demonstrate the process of making an appropriate decision. Move around the room to monitor the development of these role plays. Coach and guide individual pairs to facilitate quality role plays. It is important to ensure students represent a situation as realistically as possible.

Performance Feedback

Give pairs the opportunity to share their role plays with other students in the class. Coach the students who are observing the role play to give specific feedback regarding the acting demonstrated in the role play and whether or not the strategies were used appropriately.

Transference

Once a few groups of students have had the opportunity to share their role play, tell students you will be asking them to make decisions through the rest of the period. This is where you must embed the skill into a new context related to the curriculum. For example, when students are required to complete an investigation with other students in the class during science, tell them to make decisions about who they will work with, who will get the materials and how much work each will do.

The purpose is to make students consciously aware of using the strategies and to give them the opportunity to practise the strategies as much as possible in a meaningful situation.

Prosocial Skills Lesson Plan for Junior High
Making Good Decisions

Set

Begin the lesson by discussing with students the kinds of situations that require them to make decisions. It is important to relate the discussion to issues that students might be facing in their lives. Junior high students need to consider the decisions they make on a daily basis regarding the friends they choose and the types of behaviours they exhibit in certain situations. Situations you may want to make them consciously aware of are: who they choose as friends, what they do in their spare time, should they smoke and should they choose to have sex. The purpose of the discussion is to demonstrate how many decisions students make each and every day of their lives. The consequences of their decisions can impact on them positively or negatively based on their ability to make appropriate decisions. Once students have their attention focused on decision making and are beginning to see its value, then move on to the decision-making strategies.

Definition

Define the strategies for good decision making. Using the overhead, list the strategies and talk about each of them.

Strategies

- Ask yourself if your decision could hurt you either physically or mentally.

- Ask yourself if your decision could hurt others either physically or mentally.

- Ask yourself if your decision could damage anything.

The visual representation on the overhead projector is important to enable students to refer to the strategies on an ongoing basis. If students suggest alternative strategies, accept them and add them to the list.

Brainstorm

Brainstorm the kinds of decisions students will need to make today. Facilitate discussion by having them think about contexts both in and out of school.

Modelling

Demonstrate how to go about making a decision regarding a situation at home or at work. An example might be deciding how much work to do today, whether to go out for lunch or whether to buy something. Model an example of positive decision making (choosing to do your work instead of going for lunch) using the above strategies. Using self-talk, demonstrate the decision-making strategies used. You want students to observe the use of self-talk so they can appreciate its purpose in monitoring behaviour.

Demonstrate an example of negative decision making (choosing to ignore the work and go for lunch) using the strategies ineffectively. This demonstrates how an outcome of a situation can be very different based on whether a good or a bad decision is made.

Role Play

Ask students to form pairs. Have them decide on a situation they could role play to demonstrate the process of making an appropriate decision. Move around the room to monitor the development of these role plays. Coach and guide individual pairs to facilitate quality role plays. It is important to ensure students represent a situation as realistically as possible.

Performance Feedback

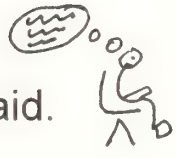
Give pairs the opportunity to share their role plays with the other students in the class. Coach the students who are observing the role play to give specific feedback regarding the acting demonstrated in the role play and whether or not the strategies were used appropriately.

Transference

Once a few groups of students have had the opportunity to share their role plays, tell students you will be asking them to make decisions through the rest of the period. This is where you must embed the skill into a new context related to the curriculum. For example, when students are required to complete an investigation in science with other students in the class, tell them to make decisions about who they will work with, who will get the materials and how much work each will do. The purpose is to make students consciously aware of using the strategies and to give them the opportunity to practise the strategies as much as possible in a meaningful situation.

Simplifications of Skill Steps for Young Students[18]

Listening

1. Look.
2. Stay still.
3. Nod your head.
4. Think about what is being said. 

Asking a Question

1. What will you ask?
2. Who will you ask?
3. Is it a good time?
4. Ask the question.

Responding to Teasing

1. Stop and think.
2. Count to five.
3. Walk away.

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[18] From *Skillstreaming in early childhood: teaching prosocial skills to the preschool and kindergarten child* (p. 106), by E. McGinnis and A. P. Goldstein, 1990, Champaign, IL: Research Press. Reprinted with permission.

Social Skills Training: Other Teaching Resources

This listing is not to be construed as an explicit or implicit departmental approval for use of the resources listed. These titles are provided as a service only to assist school authorities to identify resources that contain potentially useful ideas. The responsibility to evaluate these resources prior to selection rests with the user, in accordance with any existing local policy.

Resources listed in this section can be ordered from the publishers.

The ASSIST series of manuals by P. Huggins. Longmont, CO: Sopris West
Telephone: (303) 651-2829.

The ASSIST series of manuals deals with a range of prosocial skills. ASSIST stands for Affective/Social Skills: Instructional Strategies and Techniques.

Building self-esteem in the classroom includes a series of sequential lessons and activities designed to promote self-awareness. Students from K–3 learn to use the techniques of positive inner speech to build self-esteem and cope effectively with mistakes and put-downs.

Creating a caring classroom includes a collection of strategies designed to promote mutual respect, trust, risk-taking and support in K–8 classrooms.

Helping kids handle anger includes lessons to help students from K–8 acknowledge, accept and constructively express anger. Role play and puppets are used to encourage active and creative student involvement.

Teaching about sexual abuse provides students from K–8 with information about sexual abuse in a low-key, matter-of-fact way. Lessons focus on the student's right to reject inappropriate behaviour, assertiveness skills helpful in the prevention of sexual abuse and establishing family and community support systems.

Teaching cooperation skills is a series of lessons and experiential activities designed to teach students from K–8 the skills necessary for cooperative learning to take place. Students learn to resolve conflicts through negotiation and compromise.

Teaching friendship skills: primary version provides lessons for Grades 1–3 designed to teach the identified processes used by children who get along well with their peers: learning to listen to others, empathize and understand others' points of view and make themselves and others feel valued.

Teaching friendship skills: intermediate version provides lessons for Grades 4–8 designed to teach skills as in the *Primary Version*.

Esteem builders (1989) by Dr. Michele Borba. Rolling Hills Estates, CA: Jalmar Press / Kitchener, ON: Mind Resources
Telephone: (519) 895–0330.
ISBN 0–915190–53–2.

A K–8 program that uses five building blocks of self-esteem (security, selfhood, affiliation, mission, competence) as a base. Includes over 250 grade-level, curriculum-content cross-related activities, assessment tools and a checklist of educator behaviours for modelling. Contains instantly usable award designs for certificates, buttons and posters, a 40-week lesson planner and extensive bibliography.

Getting along with others: teaching social effectiveness to children (1993) by Nancy F. Jackson, Donald A. Jackson and Cathy Monroe. Waterloo, ON: Research Press
Telephone: 1–800–265–3375.
ISBN 0–87822–270–7.

A Grades 5–10 social effectiveness program. It includes 17 skills with prepared lesson plans for one to two hours of time. Each plan gives a session outline, including goals, materials needed and scripted dialogue. The first core components are: committing to positive interactions in general, careful definition and clarification of behaviour expectations, introduction to the new skill and consistent use of teaching strategies. The second and optional core components are: relaxation training, snack time and activities notes. Also included are: a homework guide, homework assignments, role plays and suggestions for students who misunderstand instructions. It is easy to use and requires minimal planning time.

Learning the skills of peacemaking: an activity guide for elementary age children on communicating, cooperating and resolving conflict (1987) by Naomi Drew. Rolling Hills Estates, CA: Jalmar Press / Kitchener, ON: Mind Resources
Telephone: (519) 895–0330.
ISBN 0–915190–46–X.

This activity guide includes 56 lessons for elementary age children. Objectives, materials list and procedures are set out. Includes scripts, examples of parent letters and illustrated ideas for projects, posters, murals, mobiles, poems and award certificates. The four main concepts are: accepting self and others, communicating effectively, resolving conflicts and understanding intercultural differences. The three main themes are: Peace Begins with Me, Integrating Peacemaking and Exploring Our Roots.

The Prepare curriculum: teaching prosocial competencies (1988) by Arnold P. Goldstein. Waterloo, ON: Research Press
Telephone: 1–800–265–3375.
ISBN 0–87822–295–2.

This manual provides a comprehensive prosocial skills training program for use with junior high and senior high school students. The curriculum consists of a series of 10 course-length interventions including problem solving, interpersonal skills, situational perception, anger control, morai reasoning, stress management, empathy, recruiting supportive models, cooperation and understanding and using groups.

Training methods involve games, simulations, role plays, group discussions and other activities that enhance group participation and motivation for learning. The book provides teaching guidelines and program rationales for the 10 interventions.

Room 14: a social language program (activities book, instructor's manual, and picture book) (1993) by Carolyn C. Wilson. East Moline, IL: Linguisystems, Inc. Alberta representative: Virginia Wood
Telephone: (403) 282–2441.
ISBN 01–55999–255–7C5.

Room 14, for ages six to 10, includes an activities book, instructor's manual and a picture book. It is a curriculum resource which integrates easily into a language arts program with stories, comprehension questions and activities for making and keeping friends, fitting in at school, handling feelings, using self-control and being responsible. Lessons are well organized and well planned.

Skillstreaming in early childhood: teaching prosocial skills to the preschool and kindergarten child (1990) by Ellen McGinnis and Arnold P. Goldstein. Waterloo, ON: Research Press
Telephone: 1–800–265–3375.
Guidebook: ISBN 0–87822–320–7. *Program forms*: ISBN 0–87822–321–5.

The *Guidebook* identifies skills suitable for K–2 learners with multiple needs. It provides assessment, guiding strategy, concrete techniques for group or individual teaching of skills by a variety of professionals and involves the techniques of modelling, role playing, performance feedback and transfer training. It includes a chapter on evaluation and identification of skill deficits and strengths for a whole class and/or individual student plan. This book provides strategies for teaching 40 specific prosocial skills divided into six groups (Beginning Social Skills, School Related Skills, Friendship Making Skills, Dealing With Feelings, Alternatives to Aggression and Dealing With Stress).

The *Program Forms Booklet* includes teacher, parent and child skill checklists, plus a skill situations measure, response record, skills grouping, progress summary, teacher record, homework report forms, self-monitoring forms, group reward forms, skill tickets and notes, plus teacher, principal and parent awards.

Skillstreaming the elementary school child: a guide for teaching prosocial skills (1984) by Ellen McGinnis and Arnold P. Goldstein. Waterloo, ON: Research Press
Telephone: 1–800–265–3375.
Guidebook: ISBN 0–87822–235–9. *Program forms booklet*: ISBN 0–87822–236–7.

The *Guidebook* provides a detailed description of the components of structured learning and offers screening procedures to help identify students who are deficient in prosocial skills and their specific skill strengths and weaknesses. It presents a step-by-step guide for the implementation of structured learning with young children. The 60 skills fall under the headings of Classroom Survival, Friendship Making, Dealing With Feelings, Alternatives to Aggression and Dealing With Stress. A full listing of prosocial skills and their behavioural steps, along with lesson

plans and suggested application situations are also included. Designed for Grades 1–6.

The *Program forms booklet* includes a collection of 28 program forms, teacher and student checklists, record forms, progress charts, report outlines, contract forms, awards for friendship, feelings, avoiding aggression and reducing stress.

Skillstreaming the adolescent: a structured learning approach to teaching prosocial skills (1980) by Arnold P. Goldstein, Robert P. Sprafkin and N. Jane Gershaw. Waterloo, ON: Research Press
Telephone: 1–800–265–3375.
ISBN 0–87822–205–7.

This book's major focus is social skill deficiency and its remediation through a skill training approach called structured learning. Structured learning is explicitly designed to teach adolescents social skills, planning skills, skills for dealing with feelings, skill alternatives to aggression and skills for responding effectively to stress. Screening and implementation procedures, prosocial skills and their behavioural steps along with lesson plans are included. Designed for Grades 7–12.

Social competence of young children with disabilities: issues and strategies for intervention (1992) by Samuel L. Odom, Scott R. McConnell and Mary A. McEvoy (eds.). Baltimore, MD: Paul H. Brookes
Telephone: 1–800–263–4374.
ISBN 1–55766–085–9.

This book examines current knowledge and provides intervention practices to promote peer-related social competence in young children with disabilities. This book addresses themes related to the nature of children's social competence, the influence of the child's environment and family interactions on the development of social competence and specific issues concerning children with speech-language, vision, and hearing impairments.

SSS: Social skill strategies (Books A and B) (1989) by Nancy Gajewski and Patty Mayo. Thinking Publications available from Brijan Resources Ltd., Edmonton, AB
Telephone: 1–800–567–1147 or (403) 430–8305.
Book A: ISBN 0–930599–51–9.
Book B: ISBN 0–930599–52–7.

Teach 63 social communication skills to students in Grades 5–12 with *SSS: Social Skill Strategies (Books A and B)*. Through structured activities, focused discussions, visualization task and home assignments, students learn appropriate skills to survive socially. Social communication skills help students perform better academically and vocationally too.

Dozens of activities may be duplicated from *SSS: Social Skill Strategies*. Special attention has been given to the inclusion of cooperative learning principles, role playing, self-talk, regulated learning and "whole brain" ideas. Exercises are readily adaptable as oral or written communication activities. Use *SSS: Social Skill Strategies* with students who have language disorders, learning disabilities, behavioural disturbances, cognitive disabilities and traumatic brain injuries.

Walker Social Skills Curriculum: the ACCEPTS (A Curriculum for Children's Effective Peer and Teacher Skills) program (1983) by H. M. Walker, et al. Toronto, ON: Psycan Corporation
Telephone: 1–800–263–3558.

Provides a complete curriculum for teaching classroom and peer-to-peer social skills to students with or without disabilities in Grades K–6. The program can be taught in one-to-one, small group or large group formats. It includes a nine-step instructional procedure, scripts that teach critical social skills and strategies for teaching behavioural management and classroom rules. An optional videotape is available which shows students demonstrating the classroom competencies and social skills that *ACCEPTS* teaches.

Walker Social Skills Curriculum: the ACCESS (Adolescent Curriculum for Communication and Effective Social Skills) program (1983) by H. M. Walker, S. McConnell, D. Holmes, B. Todis, J. Walker and N. Golden. Toronto, ON: Psycan Corporation
Telephone: 1–800–263–3558.
Manual and Student Study Guide.

The *ACCESS* program is a companion volume and upward extension of the *ACCEPTS* program. It provides a complete curriculum for teaching effective social skills to students at the junior high and high school levels. The program teaches peer-to-peer skills, skills for relating to adults and self-management skills. The program is designed to be taught one-to-one or in small or large group format. Thirty social skills scripts, an eight-step instructional procedure and student study guide are included.

Your choice: personal social skills course for young people (1990) by S. McConnon, et al. Scarborough, ON: Nelson Canada
Telephone: 1–800–268–2222.

Your Choice is a complete easy-to-use course of activities and strategies with accompanying reproducible master worksheets.

Each handbook represents a specific aspect of personal skills development and each chapter provides a structured lesson plan and suggestions for further work.

The complete course comprises:

A Guide to *Your Choice*:
Making Active Learning Work
0–333–46425–7
The Nature of Friendship
0–333–46422–2
The Skills of Friendship
0–333–46423–0
Boyfriends, Girlfriends
0–333–46424–9
Interpersonal Communication
0–333–51118–2
Self-Esteem
0–333–46426–5
Self-Awareness
0–333–51116–6
Assertiveness
0–333–51117–4
Conflict
0–333–51119–0
Stress
0–17–420247–4
Making Decisions
0–17–420248–2
Feelings
0–17–420246–6
Groups
0–17–420249–0

The books are to be used by students in Grade 5 and up.

Cooperative Learning — Lesson Planning Guide[19]

DATE: _____ NAME: _____

ACADEMIC OBJECTIVE: _____ GRADE LEVEL: _____

SOCIAL OBJECTIVE: _____ SUBJECT: _____

I. ORGANIZATIONAL DECISIONS PRIOR TO TEACHING

GROUPS' SIZE:

ASSIGNMENT:
- ☐ Heterogeneous
- ☐ Homogeneous

Method: _____

_____

ARRANGING THE ROOM:
- ☐ Desk Clusters
- ☐ Chair Clusters
- ☐ Floor Clusters
- ☐ Tables
- ☐ Other . . .

MATERIALS:
- ☐ Shared
- ☐ Individual

LIST:

II. SETTING THE LESSON

POSITIVE INTERDEPENDENCE:	ACADEMIC TASK DIRECTIONS:	CRITERIA FOR SUCCESS:	INDIVIDUAL ACCOUNTABILITY:	INTRODUCING SOCIAL BEHAVIOURS:
☐ Goal ☐ Incentive ☐ Resource ☐ Role ☐ Environment ☐ Sequence ☐ Identity ☐ Outside Force ☐ Simulation				

III. MONITORING AND INTERVENING

WHO WILL MONITOR GROUP WORK?
- ☐ Teacher
- ☐ Teacher/Students

HOW WILL MONITORING BE DONE?
- ☐ Informal notes
- ☐ Formal observation sheet

WHAT BEHAVIOURS WILL BE MONITORED?

_____

_____

_____

IV. EVALUATING THE PRODUCT AND PROCESS OF GROUPWORK

ACADEMIC FEEDBACK:
(How will academic learning be evaluated?)

SOCIAL SKILL PROCESSING:
(How will students reflect on social interactions?)

Self-evaluation, by: _____

In Small Group, by: _____

Whole Class, by: _____

[19] From *Cooperative learning: where heart meets mind* (p. 287), by B. Bennett, C. Rolheiser-Bennett and L. Stevahn, 1991, Toronto, ON: Educational Connections. Reprinted with permission.

Cooperative Learning — Lesson Planning Guide[20]
Sample Completed Form

DATE: _____ NAME: _____

ACADEMIC OBJECTIVE: What academic learning will be targeted? GRADE LEVEL: _____

SOCIAL OBJECTIVE: What social interaction skills will be practised? SUBJECT: _____

I. ORGANIZATIONAL DECISIONS PRIOR TO TEACHING

GROUPS: SIZE:
- start small
- consider nature of task, skills of students and time

ASSIGNMENT: (mixed grouping)
- ☐ Heterogeneous
- ☐ Homogeneous (similar grouping)

Method: How will you establish the groups; i.e., procedures?

ARRANGING THE ROOM:
- ☐ Desk Clusters
- ☐ Chair Clusters
- ☐ Floor Clusters
- ☐ Tables
- ☐ Other . . .

MATERIALS:
- ☐ Shared
- ☐ Individual

LIST: What materials are needed?

II. SETTING THE LESSON

POSITIVE INTERDEPENDENCE:
- ☐ Goal
- ☐ Incentive
- ☐ Resource
- ☐ Role
- ☐ Environment
- ☐ Sequence
- ☐ Identity
- ☐ Outside Force
- ☐ Simulation

What types will be utilized?

ACADEMIC TASK DIRECTIONS:
- What procedures will students follow to complete the task?
- How will the directions be explained?
- Do students need a demonstration?

CRITERIA FOR SUCCESS:
- How will accomplishments be measured (social and academic)?
- How will students become aware of the criteria?

INDIVIDUAL ACCOUNTABILITY:
- How will individuals be held responsible for learning?
- What will motivate students to be involved?

INTRODUCING SOCIAL BEHAVIORS:
- How will social behaviours be taught and reinforced?
- Plan to focus on one social behaviour.

III. MONITORING AND INTERVENING

WHO WILL MONITOR GROUP WORK?
- ☐ Teacher
- ☐ Teacher/Students

HOW WILL MONITORING BE DONE?
- ☐ Informal notes (e.g., global observation or anecdotal notes)
- ☐ Formal observation sheet (e.g., tally sheets or checklists)

WHAT BEHAVIORS WILL BE MONITORED?
In addition to the expected social skills that will be monitored, are there other behaviours you will observe?

IV. EVALUATING THE PRODUCT AND PROCESS OF GROUPWORK

ACADEMIC FEEDBACK:
(How will academic learning be evaluated?)

See Chapter 9 on "Evaluation" for examples

SOCIAL SKILL PROCESSING:
(How will students reflect on social interactions?)

Self-evaluation, by: _____

In Small Group, by: _____

Whole Class, by: _____

[20] From *Cooperative learning where heart meets mind* (p. 286), by B. Bennett, C. Rolheiser-Bennett and L. Stevahn, 1991, Toronto, ON: Educational Connections. Reprinted with permission.

Cooperative Learning Lesson Planning Guide[21]

Subject Area: _____

Grade Level: _____

Lesson Description: _____

_____

_____

_____

Objectives: Academic: _____

_____

_____

Social: _____

_____

_____

_____

Materials: _____

_____

_____

_____

_____

_____

Organizational Decisions:

Group Size: _____

Assignment to Groups: _____

_____

_____

Room Arrangement: _____

_____

_____

[21] From *Cooperative learning: where heart meets mind* (pp. 289–290), by B. Bennett, C. Rolheiser-Bennett and L. Stevahn, 1991, Toronto, ON: Educational Connections. Reprinted with permission.

Task Directions: _____

Positive Interdependence: _____

Individual Accountability: _____

Criteria for Success: _____

Evaluation of Academic Learning: _____

Social Learning (Processing):

✓

__ Self-evaluation, by: _____

__ In Small Groups, by: _____

__ Whole Class, by: _____

[21] From *Cooperative learning: where heart meets mind* (pp.289–290), by B. Bennett, C. Rolheiser-Bennett and L. Stevahn, 1991, Toronto, ON: Educational Connections. Reprinted with permission.

Checking Out My Social Skills[22]

A. Place a check (✓) in the boxes which you feel apply to you.

- ☐ I said things which made my partners feel good about themselves.
- ☐ I tried to smile even when I didn't agree with another person's ideas.
- ☐ I was a good person to have in the group because I made other people feel good.
- ☐ It felt great to make other people happy.
- ☐ I made an effort to disagree in an agreeable way.
- ☐ I made sure that my voice didn't get TOO LOUD!
- ☐ I politely told other people to stay on task.
- ☐ I was nice when I told others that it was getting too noisy.
- ☐ I helped tidy up.

B. Please answer these questions in the spaces below:

1. What were some of the things you said when you disagreed in an agreeable way?

2. What could your group work on next time to work together better?

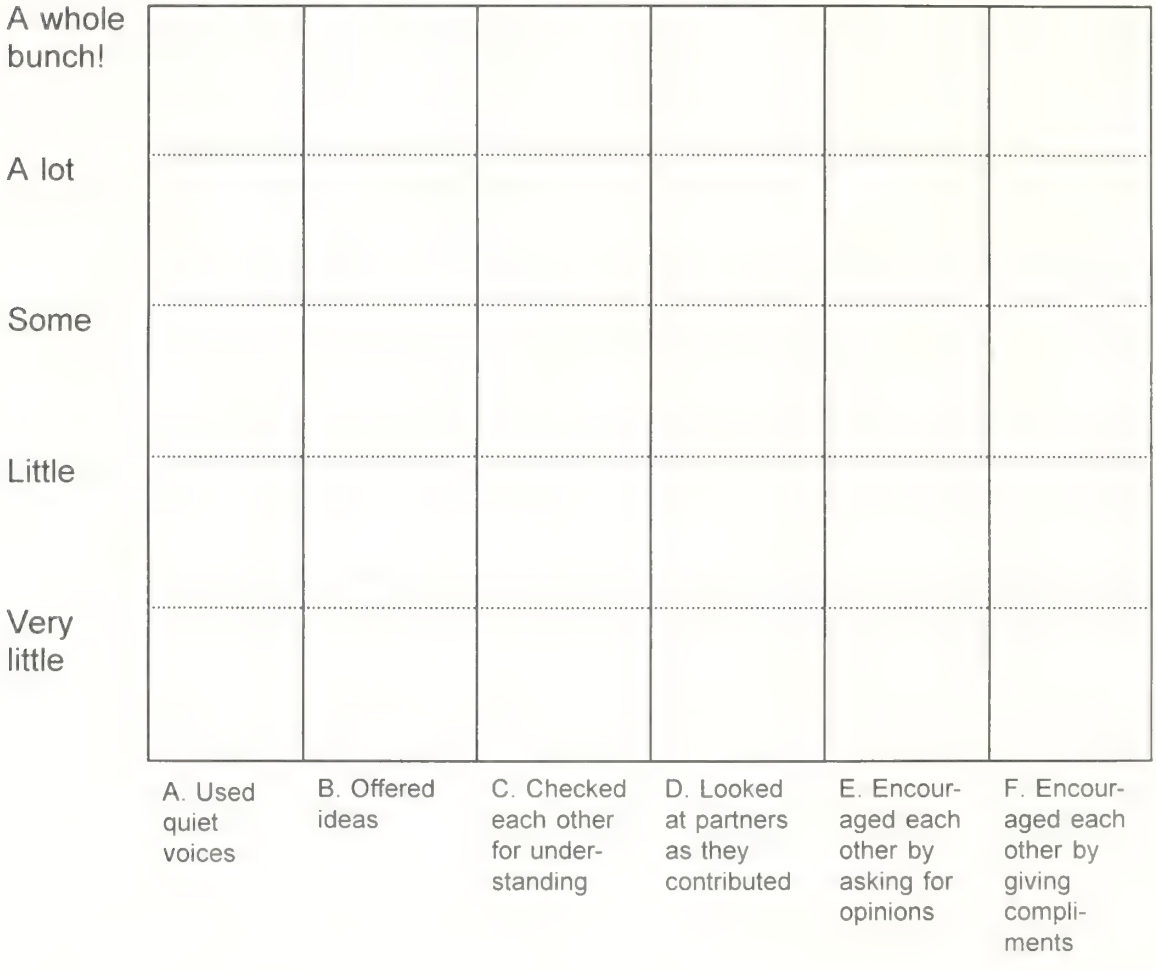
---

[22] From *Cooperative learning: where heart meets mind* (p. 139), by B. Bennett, C. Rolheiser-Bennett and L. Stevahn, 1991, Toronto, ON: Educational Connections. Reprinted with permission.

How Well Did We Work Together[23]

Team Name: _____

Discuss, reach agreement and colour each bar on the graph up to the agreed level


A whole bunch!
A lot
Some
Little
Very little
A. Used quiet voices
B. Offered ideas
C. Checked each other for understanding
D. Looked at partners as they contributed
E. Encouraged each other by asking for opinions
F. Encouraged each other by giving compliments

[23] From *Cooperative learning: where heart meets mind* (p. 148), by B. Bennett, C. Rolheiser-Bennett and L. Stevahn, 1991, Toronto, ON: Educational Connections. Reprinted with permission

Group Evaluation[24]

Place a check on the blank that best represents your group's evaluation of social skills.

	Seldom				Always
We made certain that all members of our group understood the work.	____	____	____	____	____
We listened to the ideas and contributions of all group members.	____	____	____	____	____
We were patient when explaining difficult material to members within the group.	____	____	____	____	____
We shared the workload within the group.	____	____	____	____	____

What was your group particularly effective in doing? Explain the secret of your success?

_____

_____

_____

_____

_____

_____

What would you do differently next time to enhance cooperation? Explain fully.

_____

_____

_____

_____

_____

_____

[24] From *Cooperative learning: where heart meets mind* (p. 150), by B. Bennett, C. Rolheiser-Bennett and L. Stevahn, 1991, Toronto, ON: Educational Connections. Reprinted with permission

Team Assessment[25]

Complete the following questions as a team.

	Low				High
1. Did all of the members of our group contribute ideas?	1	2	3	4	5
2. Did all of the members of our group listen carefully to the ideas of other group members?	1	2	3	4	5
3. Did all of the members of our group encourage other members to contribute their thoughts and opinions?	1	2	3	4	5

4. Three ways that we helped each other learn the material were:

   • _____

   • _____

   • _____

5. a. One difficulty our group had was (explain fully):

   _____

   _____

   _____

   b. To resolve the situation we could:

   _____

   _____

   _____

Group signatures: _____ _____

_____ _____

[25] From *Cooperative learning: where heart meets mind* (p. 152), by B. Bennett, C. Rolheiser-Bennett and L. Stevahn, 1991, Toronto, ON: Educational Connections. Reprinted with permission.

Co-teaching Planning Form[26]

Co-teachers _____

Class/Subject(s) _____ Date _____

Teaching Session No. _____ Day(s) Mon.Tues.Wed.Thurs.Fri.Week(s) of _____

Next Planning Session Day _____ Time _____

Location _____ Date _____

Goal(s)

1. _____

2. _____

3. _____

4. _____

5. _____

Time	Location Person Responsible	Activity Format	Student Activity	Teacher Role	Accommodation Strategies	Evaluation Strategies

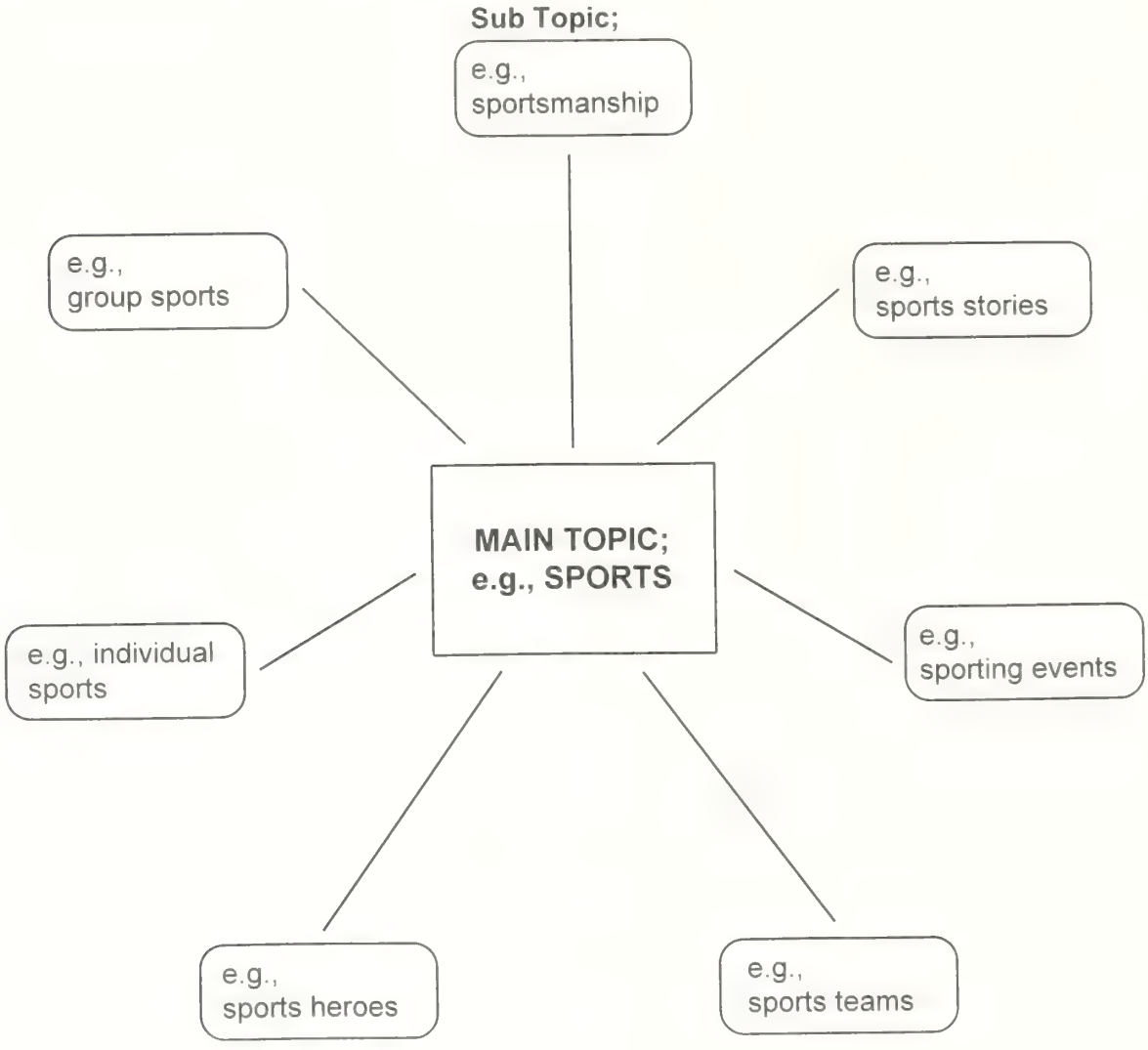
Comments _____

_____

[26] From "Cooperative planning for regular classroom instruction of students with disabilities," by R. A. Gable, 1993, *Preventing School Failure*, *37*(4), p. 19. Reprinted with permission of the Helen Dwight Reid Educational Foundation. Published by Heldref Publications, 1319 – 18th Street N.W., Washington, DC 20036–1802. Copyright © 1993.

Sample Web[27]

Provide students with a blank web or, initially, one with major headings supplied. Filling in key concepts, ideas and words can help students concentrate on the information being provided.



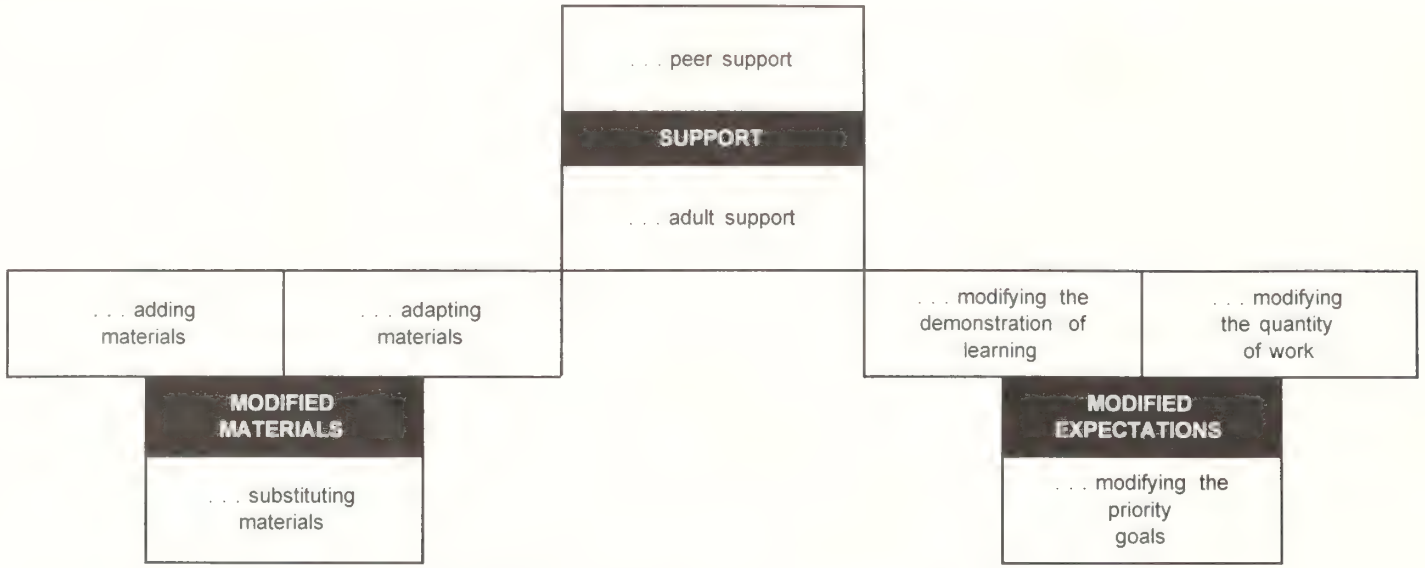
[27] From Edmonton Public School District No. 7. Reprinted with permission.

Curriculum Modification and Student Supports[28]

1. Can the student participate in this lesson in the same way as all other students?

   If ***YES*** — stop here. If ***NO*** — go on to question #2.

2. Which of the following supports and/or modifications (one or more) are necessary for the student's full participation in this lesson?


. . . peer support
SUPPORT
. . . adult support
. . . adding materials
. . . adapting materials
. . . modifying the demonstration of learning
. . . modifying the quantity of work
MODIFIED MATERIALS
. . . substituting materials
MODIFIED EXPECTATIONS
. . . modifying the priority goals

- Does the student have all of the ***necessary supports***; e.g., technology, medical?
- Does the student have a way to ***communicate all day long***?
- Are all modifications and materials ***age-appropriate***?
- Are modifications made taking into consideration the concept of ***comparable challenge***?
- Does the student have opportunities to ***give as well as receive*** support?
- Are all modifications made keeping in mind the ***highest expectations***?
- Has the student been given all of the necessary instructional opportunities to gain ***core skills*** (reading, math and writing)?

[28] From *From special to regular, from ordinary to extraordinary* (p. 27), 1993, Durham, NH: University of New Hampshire. Reprinted with permission.

Curriculum Modification Workplan[29]

The curriculum modification workplan can be used as both a pre-planning document and as an observation form to assess how planned modifications are working for the student and classroom.

Student _____ Age _____ Grade _____ School _____

Likes _____

Dislikes _____

Strengths/Abilities _____

Goals/Expectations _____

Class/Subject Area _____

What is the class doing?	What is the student doing?	What goals are being met?	What supports are needed?
1.	1.	1.	1.
2.	2.	2.	2.
3.	3.	3.	3.
4.	4.	4.	4.
5.	5.	5.	5.

Ways to Modify Typical Daily Routines

Goal _____

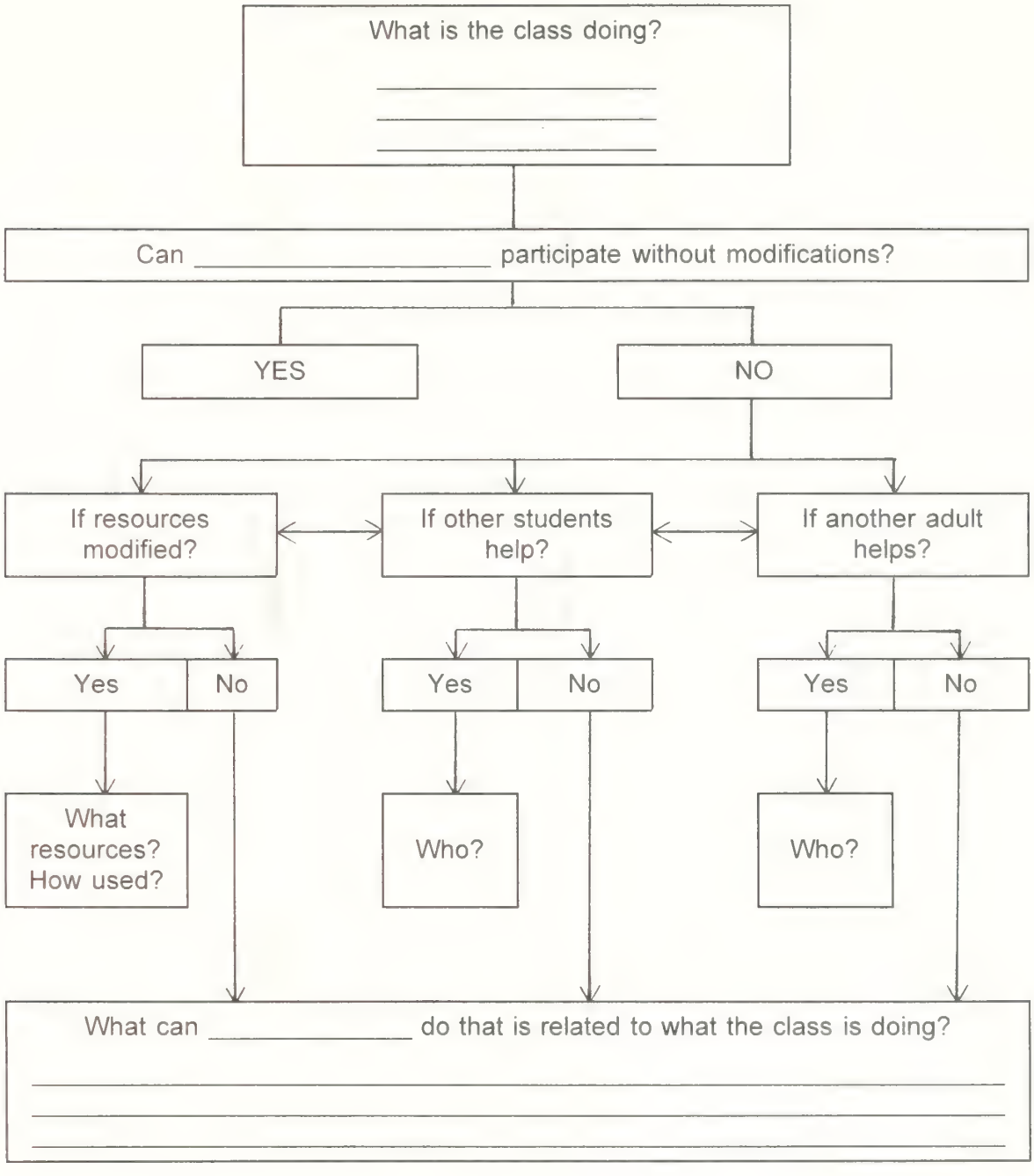
Daily routines _____

Goal _____

Daily Routines _____

[29] From *Strategies for modifying and expanding curriculum for students with disabilities*, 1990, Concord, NH Institute on Disability Reprinted with permission

Modification Planning Form[30]



[30] From Edmonton Public School District No. 7. Reprinted with permission.

Modification Process Example[31]

LEARNING GROUP CHARACTERISTICS

CURRICULUM AREA: GRADE LEVEL: TOPIC: ESTIMATED TIME:

Program of Studies Knowledge: Priority Goal: Goals and Objectives:

Skill(s):

Attitude:

	Curriculum Implementation	Student Product	Demonstration of Growth
Basic plan for all students • What? • Why? • How?			
Students needing extended challenge			
Students needing more support			

[31] From Edmonton Public School District No. 7. Reprinted with permission.

Modification Process Example[31]

<table>
<tr><td>Goal(s):
Objective(s):
Knowledge:

Skills:

Attitudes:</td><td>Student strengths, interests and needs to be considered:</td></tr>
<tr><td>Basic lesson:</td><td>Resources:</td></tr>
<tr><td>Students needing more support:</td><td rowspan="2">Organizing for instruction:</td></tr>
<tr><td>Students needing more challenge:</td></tr>
<tr><td>Strategies selected: Why?</td><td>Criteria for evaluation:
Basic:

Support:

Challenge:</td></tr>
</table>

[31] From Edmonton Public School District No. 7. Reprinted with permission.

Modification Process Example[31]
Sample Completed Form

<table>
<tr>
<td>Goal(s):
Objective(s):
Knowledge: Changes Albertans had to make to their lifestyle in order to cope with conditions during the depression.
Skills: Gather, organize, interpret information.
Attitudes: Appreciation and tolerance of the decisions made by Albertans during the depression.</td>
<td>Student strengths, interests and needs to be considered:
– students who need some challenge
– students who have difficulty reading
– students with little background knowledge on the topic.</td>
</tr>
<tr>
<td>Basic lesson: Read with teacher That Scatterbrain Booky, focusing on lifestyle during the depression. Students find and record key words and phrases to describe home/food/clothing/jobs.
– Students contrast each of these with their own lives in chart form.</td>
<td>Resources:
That Scatterbrain Booky (book, audiotape)
Ten Lost Years — Barry Broadfoot</td>
</tr>
<tr>
<td>Students needing more support:
In addition to taking part in the reading of That Scatterbrain Booky, students can listen to it on tape to identify key words and phrases.
– students describe any two of the topics: home/food/clothing.</td>
<td rowspan="2">Organizing for instruction:
– Students are given a choice to work individually, with a partner or in groups of three.</td>
</tr>
<tr>
<td>Students needing more challenge:
Students also use as resource (selected sections) of the book Ten Lost Years by Barry Broadfoot. Students locate factual information.
– Students support or question fictional accounts.</td>
</tr>
<tr>
<td>Strategies selected: Why?
– Record the story on tape for students who have difficulty reading.
– Offer the option of using pictures for students who have difficulty writing.</td>
<td>Criteria for evaluation:
Basic: students will develop a retrieval chart comparing home/food/clothing and jobs in Booky's time (1930s) to the student's lifestyle of today.
Support: students will develop a chart and may use words of pictographs to depict information.
Challenge: students will develop a chart to contrast the three situations.</td>
</tr>
</table>

[31] From Edmonton Public School District No. 7. Reprinted with permission.

Program Analysis Worksheet (PAW)[32]

Name: _____ Date Initiated: _____

Curricular Area: _____ Review Date: _____

		IS IT APPROPRIATE?		MODIFICATIONS	
Class Learner Expectations highlight appropriate learner expectations	Assessment	As is	With adapted presentation/environment, expectations, materials, assistance, assessment	Person Resp.	Individual Objectives (IPP)	Assessment — Comments (date achieved)

[32] From *Homecoming model* (p. 67), by J. S. Thousand, et al., 1986, Burlington, VT: University of Vermont. Reprinted with permission.

Program Analysis Worksheet (PAW)[33]
Sample Completed Form

Name: Katie

Date Initiated: September 30

Curricular Area: Grade 5 Social Studies – Topic A
Canada: Its Geography and People

Review Date: October 30

			IS IT APPROPRIATE?		MODIFICATIONS	
Class Learner Expectations highlight appropriate learner expectations	Assessment	As is	With adapted presentation/environment, expectations, materials, assistance, assessment	Person Resp.	Individual Objectives (IPP)	Assessment — Comments (date achieved)
The student will understand that Canada has distinct physical regions	draw a map of Canada with provinces/territories and capital cities	Y	will be given an outline map of Canada and be required to draw the provinces/ territories and mark the locations of the capitals Will orally identify each province/territory and capital and the scribe will write the names	teacher	Katie will be able to orally participate in class assignments, assistance with writing will be provided when necessary	Achieved, she had no difficulty with the vocabulary and names, she was able to spell the names correctly
	exam – label provinces/ territories and capital cities on a map of Canada	Y	will orally identify each province/territory and capital and the scribe will write the names			
The student will understand that Canada has distinct political divisions	written assignment – demonstrating an understanding of different groups having different viewpoints on, for example, the family	N	will present an audiotape or a videotape selection on how she views family and how another group of Canadians may view the family (compare and contrast – two points)	teacher		
The student will understand that Canadians modify and adapt to natural settings in ways that affect their lifestyle and environment	colour a map of Canada reflecting population density and compare this to climate	Y	none required			
	written exam – explain three ways a Canadians living in the north and b Canadians living on the East coast adapt to their environment	N	will take the written exam in an oral format with time extensions as necessary, a scribe will write the answers	teacher		

[33] From ECSS Educational and Counselling Support Services (1995) Reprinted with permission

Program Analysis Worksheet (PAW)[34]
Sample Completed Form

Name: Ivan Date Initiated: September 15

Curricular Area: Grade 11 CALM 20 – Theme 3 – Relationships Review Date: October 15

			IS IT APPROPRIATE?		MODIFICATIONS	
Class Learner Expectations highlight appropriate learner expectations	Assessment	As is	With adapted presentation/environment, expectations, materials, assistance, assessment	Person Resp.	Individual Objectives (IPP)	Assessment — Comments (date achieved)
Understanding relationships; personal and impersonal	oral report	Y	work with another student; use a reporter interview format; give three facts about family relationships	peer and teacher		
Recognizing commitments and expectations; levels of commitment, meeting personal needs, life cycle influences	written assignment; discuss three relationships from social, emotional, physical and emotional dimensions	N	will cut out two pictures; one showing how he feels about his mother; the other about his father	teacher		
Developing, maintaining, enhancing stable and satisfying relationships; relationships change, role of conflict and conflict resolution	demonstration through an interactive/ competitive game format	N	will identify orally or with pictures one thing he likes about peers in his circle of friends and one thing he does not like	teacher; circle of friends	Ivan will enhance his peer relationships by participating in lunch with his circle of friends	Achieved; he likes the company and dislikes being treated like a little kid
Dealing with grief and loss; identify the process and skills necessary	a collage depicting feelings related to a loss after one week; one month; six months; one year	Y	will find a picture of a person (or a pet) with whom he was close who either died or moved away; will be able to express appropriate feelings	teacher		
Choices and challenges; relationships and networks	participate in a team event where an individual cannot succeed alone	Y	will participate to the full degree he is able	teacher and peers	Ivan will participate with his circle of friends in various activities	Achieved; he participated in an obstacle course set up in the gym

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Sample Sentence Starters and Organizational Outline[35]

A. Sentence Starters

1. I awoke with a start and _____
2. One of the best things about _____
3. I like _____ because _____
4. I disagree that _____

B. Essay Step One: Outline

Topic Sentence
Supporting Fact #1
Supporting Fact #2
Supporting Fact #3
Concluding Sentence

In my opinion _____

_____ For one thing _____

_____

_____ Another thing is, _____

_____

_____ Also, _____

_____ In conclusion, _____

_____

Variations of "In my opinion": I feel, I think, I believe, It is my belief

Variation of transition words: First of all, second, third

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Organizing Ideas (General)[36]

Main topic (of chapter, book, short story, article, etc.):

_____

_____

_____

Main ideas:

1. _____ 2. _____ 3. _____

_____ _____ _____

_____ _____ _____

Supporting examples, points, details:

a. _____ a. _____ a. _____

_____ _____ _____

_____ _____ _____

b. _____ b. _____ b. _____

_____ _____ _____

_____ _____ _____

c. _____ c. _____ c. _____

_____ _____ _____

_____ _____ _____

d. _____ d. _____ d. _____

_____ _____ _____

_____ _____ _____

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Organizing (Compare and/or Contrast)[37]

Main topic (of chapter, book, short story, article, etc.):

_____

_____

_____

What is being compared and/or contrasted? (Note: one or several things or ideas can be compared/contrasted.)

a. _____ to _____

_____ _____

b. _____ to _____

_____ _____

Main points of comparison/contrast	Indicate whether they are the same, similar or different. If similar or different, explain how they differ.
i. _____	_____
	_____
ii. _____	_____
	_____
iii. _____	_____
	_____
iv. _____	_____
	_____

[37] From Edmonton Public School District No. 7. Reprinted with permission.

Organizing (Character Studies)[38]

Identify two or three main characters:

1. _____
2. _____
3. _____

What were their goals or objectives?

1. _____	2. _____	3. _____
_____	_____	_____
_____	_____	_____

Identify major action(s) related to their goals/objectives?

1. _____	2. _____	3. _____
_____	_____	_____
_____	_____	_____

Did the characters:

a. cooperate? If so, how? _____

b. compromise? If so, how? _____

c. engage in conflict? If so, how? _____

Did the characters achieve their goals?

Character	Yes	No	Why?
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____

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Analysis of Errors[39]

Type of Error	Example of Error	Probable Causes	Suggested Corrective Procedure
1. Omissions and Insertions a. Omission and insertion of pronounced letters	– "pospone" for "postpone" – "familar" for "familiar"	Inaccurate visual image Inaccurate auditory memory Careless or inaccurate pronunciation	– make students conscious of the need to see each letter in the word – have pupils look at the word carefully the first time – have pupils close their eyes and try to visualize it before they write it – break the word into syllables – pronounce each word accurately for the class at first presentation – pronounce each word with the class – listen while the class pronounces the word – repeat the difficult part several times – activities to improve listening skills
b. Omission and insertion of silent letters	– "lineing" for "lining" – "ofen" for "often" – "gost" for "ghost" – "lite" for "light"	Inaccurate visual image	– see 1a. above – special emphasis must be placed on the visual image – observe each part of the word and have pupils practise writing the part likely to cause trouble – provide written exercises to reinforce correct spelling – teach spelling generalizations where applicable; e.g., dropping final e before adding a syllable beginning with a vowel (come — coming)
2. Letter Substitutions a. Substitution of consonant sounds	– "gudge" for "judge" – "sity" for "city" – "skool" for "school"	Inaccurate visual image Insufficient knowledge of sound-symbol relationships	– see 1a. above – practise for correct image of the word – students need to know that some sounds can be represented by more than one written symbol; e.g., f can be represented by f, ff, gh (rough), ph (phone)

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Analysis of Errors (cont'd)[39]

Type of Error	Example of Error	Probable Causes	Suggested Corrective Procedure
b. Substitution of vowel sounds	– "salery" for "salary" – "rejoyce" for "rejoice"	Inaccurate visual image	– see 1a. above – break the word into syllables; look at each part carefully – try to get the kinesthetic "feel" of the word by practising
c. Confusion of double vowels	– "feer" for "fear" – "quear" for "queer"	Inconsistency of English language Inaccurate visual image	– stress the fact that sometimes there is an inconsistency between word sounds and the letters that represent the sounds – concentrate on visual and kinesthetic memory for such words
3. Confusion from Mispronunciation	– "chimley or "chiminey" for "chimney" – "choclet" for "chocolate"	Careless or inaccurate pronunciation Careless listening habits Inaccurate auditory memory	– pronounce words carefully, especially when first presenting the word – activities to improve listening skills – accept only precise pronunciation from students – provide opportunities for oral use of words that give trouble – teachers and pupils must concentrate on auditory discrimination – see 1a.
4. Transportation	– "gril" for "girl" – "gose" for "goes" – "recieve" for "receive"	Inaccurate visual image Failure to listen carefully for sequence of sounds Failure to apply the generalization	– see 1a. – pronounce words distinctly while pupils listen to sequence of sounds – give students practice pronouncing while they write troublesome words – rule concerning "ie" and "ei" is one of the few useful generalizations; be sure students learn entire rule

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Analysis of Errors (cont'd)[39]

Type of Error	Example of Error	Probable Causes	Suggested Corrective Procedure
5. Doubling (except derived word endings)	– "reccomend" for "recommend" – "vaccum" for "vacuum"	Inaccurate visual image Carelessness Lack of concentration during the process of learning the word	– stress the double consonant in presenting or representing the word – proofread for careless errors; use the dictionary – repeat steps in learning the word – use word correctly in a sentence
6. Derived Word Endings	– "stopt" or "stoped" for "stopped" – "comeing" for "coming" – "flys" for "flies" – "sincerly" for "sincerely"	Failure to apply the generalizations re: doubling consonants, forming plurals, adding suffixes to words ending with e, etc. (See spelling generalizations) Carelessness	– teach the use of the rules related to forming derivatives – provide plenty of practice, using simple words – pupils list other words that illustrate the use of the rules (see spelling generalizations) – proofread for careless errors
7. Homonyms	– "there" for "their" – "to" for "too" – "its" for "it's"	Failure to associate word with correct meaning	– illustrate use of word with its meaning – present the words in context – use pairs of words in sentences to distinguish meanings – emphasize meaning during initial presentation
8. Phonetic Spelling	– "bin" for "been" – "agen" for "again"	Applying phonetic spelling to non-phonetic words	– student must rely on visual memory for many words – see 1a.
9. Unclassified a. No sound-symbol relationship	– "inrean" for "imagine" – "bect" for "truck"	Deficient in phonetic sense or training	– begin with simple visual-auditory training – use kinesthetic approach also

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Analysis of Errors (cont'd)[39]

Type of Error	Example of Error	Probable Causes	Suggested Corrective Procedure
b. Misapplication of rules	– "nieghbor" for "neighbor"	Overemphasis on rules, or not learning entire rule. Rule: i before e except after c or when sounding like a as in neighbor and sleigh (exceptions: seize, weird)	– rules are not generally helpful in learning to spell in lower grades and are of limited value in upper grades
c. Illegible handwriting	– "turm" for "turn" – "wen" for "win" – "crim" for "aim"	Incorrect letter forms	– provide practice on troublesome letter forms – emphasize accurate letter formation
d. Carelessness		Poor concentration Poor work habits	– proofreading – praise all improvement

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One Hundred Words Most Frequently Written By Elementary School Children in Grades 1–6[40]

the	had	very	see
and	said	if	will
I	like	not	an
a	but	be	now
to	have	little	dog
was	got	could	people
in	were	home	over
it	are	this	by
he	at	down	man
we	me	can	big
my	go	back	into
of	up	as	come
is	all	about	has
on	with	them	did
you	day	saw	play
they	his	house	once
that	out	two	too
went	would	mother	their
when	get	from	off
then	him	our	or
for	her	what	your
she	came	do	know
there	some	time	dad
one	because	just	around
so	going	after	us

(These 100 words and their repetitions account for 58% of the total word counts).

[40] From *Teaching thinking* (pp. 35–38), by V. Thomas, 1979, Toronto, ON: Gage Publishing. Reprinted with permission.

Spelling for Writing List[41]

Grade 1 Word List					
a	came*	go	is	oh	stop
all	can*	good*	it*	old	the*
am*	car	got*	its*	on*	this
and*	cat	had*	let	one*	to*
at	come*	he*	like*	out*	two*
ball	dad	her*	look	play*	up
be	day*	him*	man	ran	us
bed	did	his*	may	red	was*
bed	do	home*	me*	ride	we*
book	dog*	I*	my*	run	will*
box	for*	if	no*	see	yes
boy*	fun*	in*	not	she	you*
but	get*	into*	of	so	

Grade 2 Word List					
about*	door	help	mother*	school*	time*
after	down*	here*	much	sea	today*
an*	each	hit	must	ship	told
any	eat	hope*	myself*	show*	too*
are*	end	horse	name*	sleep	took
as	fast	house*	new*	small	tree
ask	father*	how*	next	snow	try
away	feet	just*	nice*	some*	used
baby*	fell*	keep	night	soon*	very*
back	find	kid	now*	start	walk
bad	fire	know*	off*	stay	want*
been*	first*	land	only	still	way
before*	fish	last	open	store*	week
being	five	left	or*	story	well*
best	food	little*	other	take	went*
black	four	live	our*	talk	were*
boat	from*	long	outside*	tell	what
both	funny	looking	over	than*	when*
brother*	game	lot	park	that	while*
buy*	gave	love	playing	them*	white*
by	girl	mad	put	then*	who
call	give	made*	read	there*	why
candy	going*	make*	room	they*	wish
city	happy	many*	said*	thing	with*
coming*	hard	men	same	think*	work
could	has*	more	saw*	three	your
doing	have*	most	say		

*Spelling demons or commonly misspelled words.

[41] From "The Spelling for writing list," by S. Graham, K. P. Harris and C. Loynachen, 1994, *Journal of Learning Disabilities*, *27*(4), pp. 210–214. Copyright 1994 by Pro-ed, Inc. Reprinted with permission.

Spelling for Writing List (cont'd)[41]

Grade 3 Word List					
again*	don't*	hair	lunch	ready	their*
air	earth	half	maybe*	real	these*
almost	even	having*	might*	right*	thought*
also	ever	head	money*	running*	trip
always*	every*	heard*	morning*	says	trying
another*	everyone*	hour	Mr.*	should	turn
anything*	everything*	hurt*	Mrs.*	sister	walking
around*	eye	I'll*	Ms.	someone*	wasn't
because*	face	I'm*	never	something*	watch
better	family*	it's*	nothing	sometime*	water
can't*	few	kind	once*	stopped*	where*
catch	found*	knew*	own	summer*	which
children*	friend*	lady	party*	talking	won
class	front	later	people*	teacher*	world*
didn't*	getting*	let's*	person	team	would*
dinner	great	life	place	that's*	year
does					you're

*Spelling demons or commonly misspelled words.

[41] From "The Spelling for writing list," by S. Graham, K. P. Harris and C. Loynachen, 1994, *Journal of Learning Disabilities*, *27*(4), pp. 210–214. Copyright 1994 by Pro-ed, Inc. Reprinted with permission.

Words Most Frequently Misspelled[42]

25 Words Most Frequently Misspelled in Each of the Elementary Grades

Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
too	too	too	their	too	their
because	because	because	through	that's	too
was	upon	friend	because	until	that's
when	they	that's	friend	there	friend
went	wheels	through	too	lot	it's
they	about	there	an	you're	lot
little	again	upon	off	silver	there
nice	didn't	went	that's	beautiful	our
wants	holiday	where	they	it's	beautiful
would	said	finally	there	friend	grabbed
to	scared	wait	heard	chief	heard
said	that's	am	know	again	outside
like	to	first	finally	holiday	then
I	ghost	it's	again	horror	they
after	good-bye	another	course	off	you're
friend	morning	clothes	then	quite	finally
straw	our	know	went	received	pollution
there	people	said	caught	they	started
eat	dead	their	told	stubborn	people
then	many	were	think	started	supper
goes	nobody	baseball	were	scream	through
teacher	summer	beautiful	everyone	listened	where
have	their	favorite	favorite	experience	morning
sometime	there	ghost	first	cute	were
of	would	hockey	had	beauty	when

[42] From *Teaching spelling: Canadian word lists and instructional techniques* (pp. 35–38), by V. Thomas, 1974, Toronto, ON: Gage Publishing. Reprinted with permission.

Additional Words Most Frequently Misspelled in Elementary School[42]

afraid
all
always
and
animals
are
around
at
away
awhile
back
bear
been
before
began
behind
believe
better
bird
birthday
built
buys
bye
came
can't
catch
chases
children
climbed
come
coming
could
couldn't
cousins
decided
different
doctor
does
doesn't
don't
ever
every
everyday
everything
exciting
family
fell
field
few
finished
fired
flowers
for
found
frogs
funny
getting
girls
goalie
going
happened
happily
haunted
having
here
him
his
hole
home
horses
hospital
house
in
Indians
inside
into
its
just
knew
let's
bought
break
broke
brother
brought
months
mountains
my
names
neighbor
next
no
nothing
now
o'clock
once
one
others
out
parents
picked
pictures
place
practising
pretty
down
downstairs
engines
equipment
especially
probably
quiet
really
recess
right
saw
school
screamed
second
shoot
shot
slept
so
some
something
spotted
stepped
stopped
strange
surprise
got
grade
grandma
green
ground
swimming
take
than
the
them
there's
they're
things
thought
threw
throw
trailer
tried
turned
two
very
wasn't
water
we're
weren't
lived
looked
met
middle
might
what
white
who
whose
will
with
without
wolf
work
wouldn't
years

[42] From *Teaching spelling: Canadian word lists and instructional techniques* (pp. 35–38), by V. Thomas, 1974, Toronto, ON: Gage Publishing. Reprinted with permission.

Spelling Rules Worth Teaching[43]

The following generalizations are sufficiently universal to be taught to students who are ready to learn them.

1. Words ending in silent *e*: drop the *e* when adding a suffix or ending beginning with a vowel; e.g., skate, skating, skater.
   Exceptions for senior pupils — advantageous, manageable, changeable.
2. When a root word ends in *y* preceded by a consonant, the *y* is changed to *i*, unless the ending begins with an *i*; e.g., baby, babies; fly, flies, flying.
3. When a root word ends in *y* preceded by a vowel, the root word is not changed when adding a suffix; e.g., chimney, chimneys; play, plays, played, playful.
   Exception — pay, paid.
4. When a one-syllable word ends in a consonant preceded by one vowel, the consonant is doubled before adding a suffix or ending that begins with a vowel; e.g., hop, hopping; ship, shipping.
   If the suffix or ending begins with a consonant, there is no doubling; e.g., shipment.
5. In words of more than one syllable, the final consonant is doubled before adding a suffix or ending, if:
   - the last syllable is accented
   - the last syllable ends in a consonant with one vowel before it
   - the suffix or ending begins with a vowel; e.g., begin, beginning, beginner; admit, admitting, admittance.
6. The letter *q* is always followed by *u* in common English words; e.g., queen, quiet.
7. No English words end in v; e.g., love, glove.
8. Proper nouns and most adjectives formed from proper nouns should begin with capital letters; e.g., Canada, Canadian.
9. Most abbreviations end with a period; e.g., etc., Nov.
10. The apostrophe is used to show the omission of letters in contractions; e.g., don't, haven't.
    Exception: won't.
11. The apostrophe is used to indicate the possessive form of nouns but not pronouns; e.g., boy's, its, dog's, theirs.
12. When adding *s* to words to form plurals or to change the tense of verbs, *es* must be added to words ending with the hissing sounds (*s, x, sh, ch*); e.g., glass, glasses; watch, watches.
13. When *s* is added to words ending in a single *f*, the *f* is changed to *v* and *es* is added; e.g., half, halves; shelf, shelves.
    Exception: roof, roofs or rooves.
14. Usually *i* comes before *e* except after *c*, or when sounded like *a*; e.g., friend, receive, sleigh.
    Exceptions: seize, weird, ancient, neither.

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[43] From *Spelling handbook: grades 1–6* (pp. 4–5), by Edmonton Public School District No. 7, 1985, Edmonton, AB: Edmonton Public School District No. 7. Reprinted with permission.

Reading Program Used Successfully with Students with Learning Disabilities[44]

Joan Harwell in the *Complete Learning Disabilities Handbook* describes a reading program that has worked well for her. The program involves the sequential teaching of:

- consonant and short vowel sounds
- blending (reading word attack; blend two or three letters to make a word) and unblending* (spelling)
- sight words
- special combinations as they occur — sh, th, oo, ou, ow, ing, all, etc.
- rules for short or long vowels and other rules for structural analysis
- new vocabulary
- related reading skills.

* Joan Harwell provides the following list of words that can be used to teach the beginning spelling skill of unblending. For example, have the student say a word such as *cat* and exaggerate each sound, listen for each sound — *C-A-T*. Have the student write the word on the blackboard or on paper as he or she unblends (exaggerates) each sound.

at	cat	bus	rob	slam	fast
up	cup	drum	ran	grab	just
am	cut	cram	long	wag	snug
us	bag	last	must	hot	put
on	rag	lamp	jump	hop	pad
in	rug	nut	trap	drop	snap
if	rush	but	dot	fun	top

[44] From *Complete learning disabilities handbook* (p. 141), by J. Harwell, 1989, West Nyack, NY: Center for Applied Research in Education/a division of Simon & Schuster. Reprinted with permission.

Techniques to Assist Students to Spell[45]

The following is a modification of a list of techniques suggested by Joan Harwell in the *Complete Learning Disabilities Handbook*.

1. scramble and unscramble; for example, ylpa (play)
2. missing letter; have students fill in a missing letter; for example,
   p _ a y
3. colour-coding; for example, using red for vowels
4. clay-spelling; for example, forming letters with coloured plasticine
5. dot-to-dot; for example, writing word dot to dot

6. writing with resistance; for example, scratching word into plasticine
7. manipulative letters; for example, using felt squares with letters on them or using rubber letters
8. word searches and puzzles; for example, developing your own beginning with words students should know
9. proofreading; for example, proofreading with a buddy or with a parent
10. syllabication and structural analysis; for example, before becomes be for + e
11. teacher-guided practice using rhythm and pitch; for example, spell it aloud; close eyes and spell it
12. master list crutch; for example, produce master word list of high-frequency words and laminate for the student to use when in doubt about spelling
13. memory tricks and patterns; for example, for "jeep" exaggerate the ee sound by shaking head
14. "rap it" — march to the beat while saying it out loud
15. brainwash rules such as *i* before *e* except after *c*
16. card reader drill:
    - see the word
    - hear letters in order
    - record letters in order
    - turn card over and write word
    - turn card back over and check spelling of word.

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[45] From *Complete learning disabilities handbook* (pp. 143–146), by J. Harwell, 1989, West Nyack, NY: Center for Applied Research in Education/a division of Simon & Schuster. Reprinted with permission.

Principles and Rules[46]

Respect one another:

- Physical (Keep hands and feet to yourself)
- Feelings
- Property.

Accept responsibility:

- Willing to learn
- Prepared to learn
- Do the work.

Rules:

- describe the behaviour not the attitude
- need to be reinforced by the teacher
- need to be enforced every time they are broken
- take energy and time to enforce.

A good rule:

- is brief
- is stated positively when possible
- makes sense to those who make, enforce and follow it
- is clear, specific and behavioural.

Examples of rules that could apply at all grade levels:

- bring all materials to class (if need be stipulate pencil, paper, text, etc.)
- be in your seat and ready to work when the bell rings
- be polite to all students and staff
- stay in your seat and listen when someone is talking
- respect school and people's property.

[46] From Edmonton Public School District No. 7. Reprinted with permission.

Common Pitfalls in Administering Logical Consequences[47]

- Giving in to pity and feeling sorry for the student. This may teach students to feel sorry for themselves or that you don't really mean what you say.
- Allowing second or third chances. This encourages irresponsibility.
- Taking a punitive attitude, demonstrating impatience, using shame or humiliation, "rubbing it in" (through words, voice tone or body language). This can breed revenge on the part of the student and teach the use of negative power to control others. Anything that increases the student's anger against the teacher, decreases his willingness to assess the consequences as logical within the group structure and his willingness to cooperate with the total situation.
- Choosing a consequence that is inconvenient or punishing to you and does not encourage you to follow through.
- Too much talking — this is probably the most common error observed in teacher practice. Excessive talking can divert from the issue, reinforce the student goal and teach "teacher deafness."
- Being inconsistent. Inconsistent negative consequence may actually serve to reinforce the behaviour.
- Giving into teacher guilt. This may indicate to the student that it pays to feel abused if they can make the teacher feel guilty.
- Fearing the consequence is too easy. It isn't necessary for a consequence to be difficult or unpleasant. Most of them are somewhat unpleasant and uncomfortable, but suffering is not an essential or necessary part of the learning situation.
- Reacting to more than one behaviour at a time — particularly in reacting to the way the student takes the consequence; he or she is either not demonstrating enough misery or is trying to get out of it. The positive possibilities of the consequence may be cancelled out by an unwitting reinforcement of the student's mistaken goal.
- Giving way to expediency — at the moment, it is sometimes easier on the teacher to punish or overlook than to take the time and thought to initiate logical consequences and carry them through adequately and peacefully.
- Tone of voice — displaying anger, yelling or demanding action, turns the situation from a logical consequence into punishment or retaliation. A firm but friendly tone is most effective.
- In a dangerous situation, consequences should not be used — action is necessary.

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Natural and Material Reinforcements[48]

Statements of Praise and Encouragement

- Very accurate answers and so attractively done!
- You are really improving in (specific area). I'm proud of you.
- You are listening with such concentration. That's very polite (specific name). Thank you.
- I'm so pleased for you that you've . . .
- You're on the right track now. Let me know if I can be of assistance.
- Right on.
- That turned out just perfectly.
- That's a very good way of looking at it.
- That's an interesting point of view.

Natural/Social/Activity Reinforcements

- be first in line
- record own behaviour on a graph
- care for class pets or water class plants
- pass out paper or run errands
- decorate the bulletin board
- serve as class or office messenger
- sit by a friend
- operate the slide, filmstrip or movie projector
- visit the school principal or librarian
- give a message on the intercom
- attend class field trips
- play chess, checkers or other games
- attend school assemblies or dances
- eat lunch in cafeteria instead of classroom
- be team captain
- write and direct a play
- help correct papers
- have free time to use specific equipment or supplies
- have use of class walkman or tape recorder.

Material Reinforcements

- badges, balloons, stickers
- chalk, crayons, erasers
- bookmarks, colouring books, books
- cosmetics, jewelry, self-stick skin tattoos
- marbles, jump rope, hackey sack
- cookies, muffins, popcorn
- positive note or phone call home.

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Social and Communication Skills Checklist[49]

DATE INITIALS					
1. Interacts with peers:	a. responds to others				
	b. initiates				
2. Interacts with adults (teacher):	a. responds to others				
	b. initiates				
3. Uses social greetings					
4. Uses farewells					
5. Uses expressions of politeness					
6. Participates in joking or teasing					
7. Makes choices & indicates preferences					
8. Requests help; e.g., for clarification					
9. Asks questions; e.g., for information, clarification					
10. States or indicates:	a. don't know/understand				
	b. when finished with an activity				
11. Follows directions:	a. for curricular tasks				
	b. for helping tasks/errands				
12. Follows directions:	a. given to the student individually				
	b. given to the students as a group				
13. Orients toward speaker					
14. Secures listener's attention before communicating					
15. Takes turns communicating in a conversation with others					
16. Gives feedback:	a. positive				
	b. negative				
17. Uses appropriate gestures and body movements when interacting					
18. Uses appropriate language for topic of conversation					
19. Is understood by listeners					
SUGGESTIONS or COMMENTS					

[49] From *Strategies for full inclusion*, by J. York, T. Vandercook and S. Wolff (eds.), 1990, Minneapolis, MN: Institute on Community Integration, University of Minnesota. Reprinted with permission.

Behaviour Interviews

When a student's behaviour requires intervention, arrange a "wait time" in a quiet neutral environment before conducting a behaviour interview with the student. This wait time provides an opportunity for the student to calm down and regain self-control and lessens the likelihood that the student will view the teacher's attention as a reward for the unwanted behaviour. The wait time should be solitary and uninterrupted.

Begin the interview when the student is completely calm. Take notes during the interview and date them. Use a non-threatening tone, without judgement or blame. If there are two students involved in the incident, both should be involved. Remind them to take turns talking and to listen to each other.

- Ask: what did you do that caused you to be here?
  The purpose of this question is to have the students own their own behaviours and to identify those behaviours. Have them be specific; for example, if they used profanity, have them repeat the words.

- Ask: what happens when you behave this way? Do you think you made some unwise choices? Why were the choices unwise?
  The students are asked to make judgements regarding the value of the behaviours. It is appropriate to point out problems and consequences arising from the behaviours that the students may have overlooked.

- Ask: what are some better choices you might make next time?
  The students are required to formulate a plan for making better choices. You may provide help with the plan but the plan should belong to the student. Go over the options with the students using various scenarios. Make sure students are aware of several responses in each situation that would result in positive outcomes. Role playing and rehearsing these ideas will increase the likelihood of students using them.

- Students should formulate their plan with a timeline. If two students are involved, they may be left to create a plan of their own and share it when they are ready. Ask when the plan will begin. Students must own the start time to increase their investment in its success. (It should start when they walk out the door.)

- Remind students that there is a timeline and that there will be follow-up. If the plan does not work, develop another. If the plan is successful, commend the students. Students must know that it is OK to admit something isn't working and to try again.

Goals of Intervention[50]

TO HELP THE STUDENT:

Clarify and understand the problem.

Take responsibility for the problem.

Generate a menu of alternative behavioural responses.

By providing him or her with opportunities to behave appropriately and by acknowledging the appropriate behaviour.

Learn skills which enable him or her to realistically monitor his or her own behaviour.

Be accountable for all his or her behaviour including successes.

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Student Plan of Action[51]

NAME _____ DATE _____

What did I do that got me sent out of class/school:

_____

_____

_____

_____

_____

_____

The problem I can deal with right now is:

_____

_____

_____

_____

What I will do immediately to improve:

_____

_____

_____

_____

_____

Interim review dates:

_____

_____

_____

_____ _____

Teacher's Signature Student's Signature

_____ _____

Principal's Signature Parent's Signature

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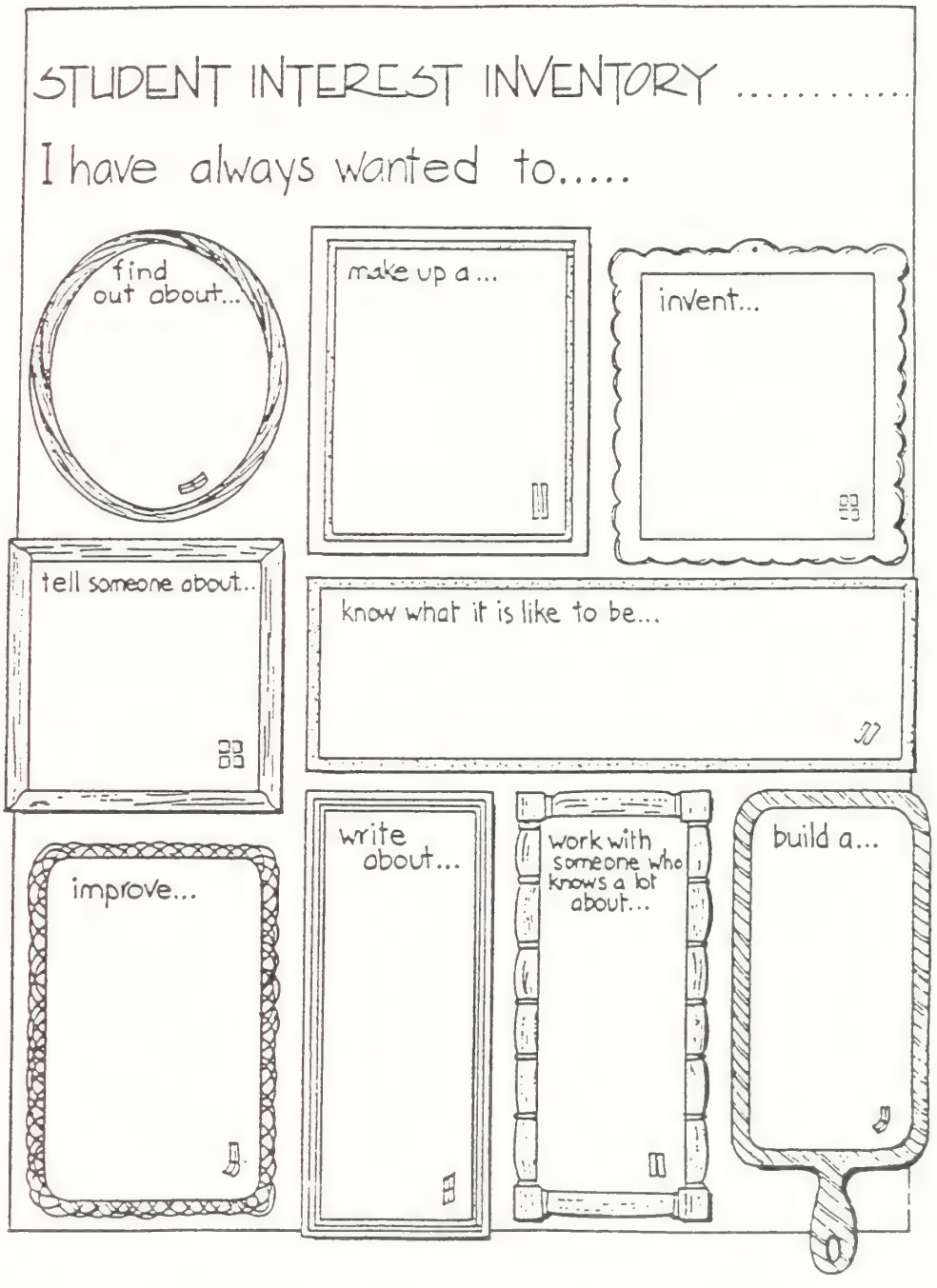
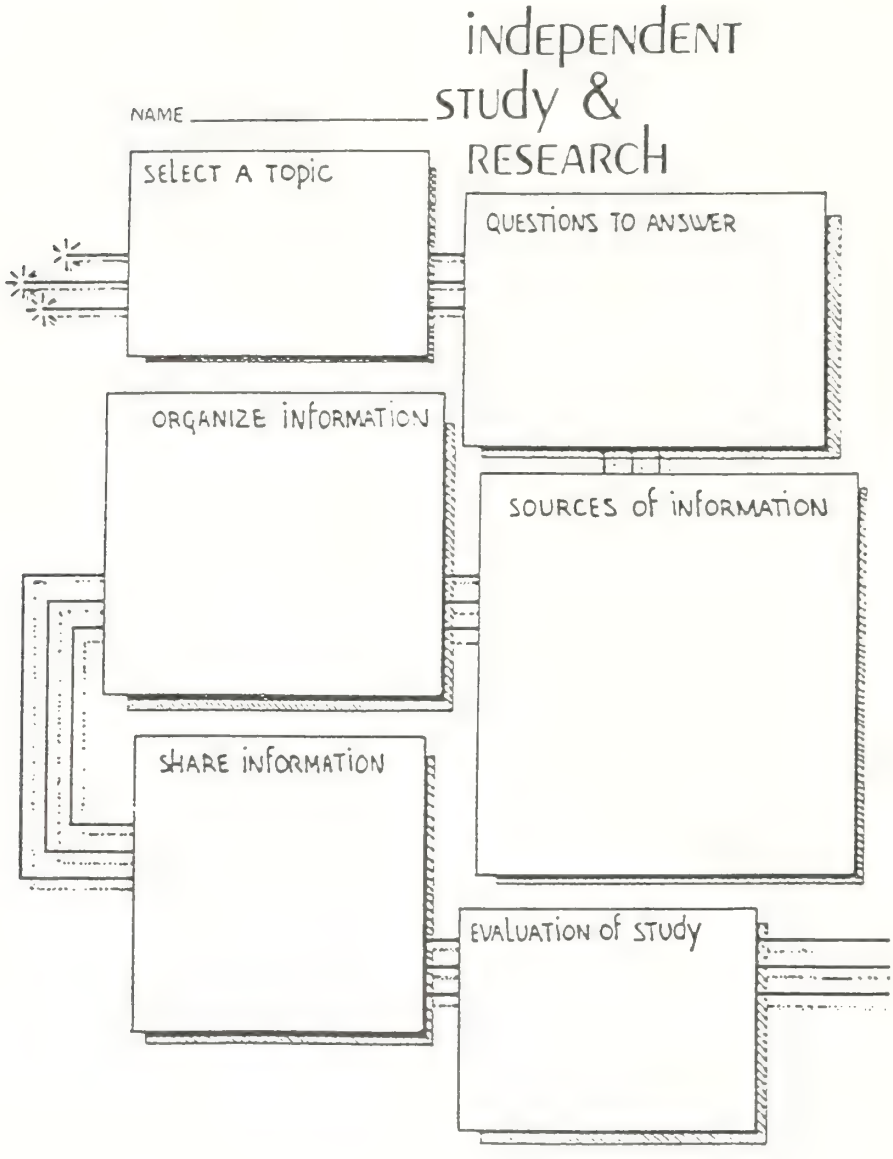
Student Interest Inventory[52]



[52] From *Academic challenge: a programming guide* (p. 3:31), by Edmonton Public School District No. 7, 1988, Edmonton, AB: Edmonton Public School District No. 7. Reprinted with permission

Independent Study and Research[53]



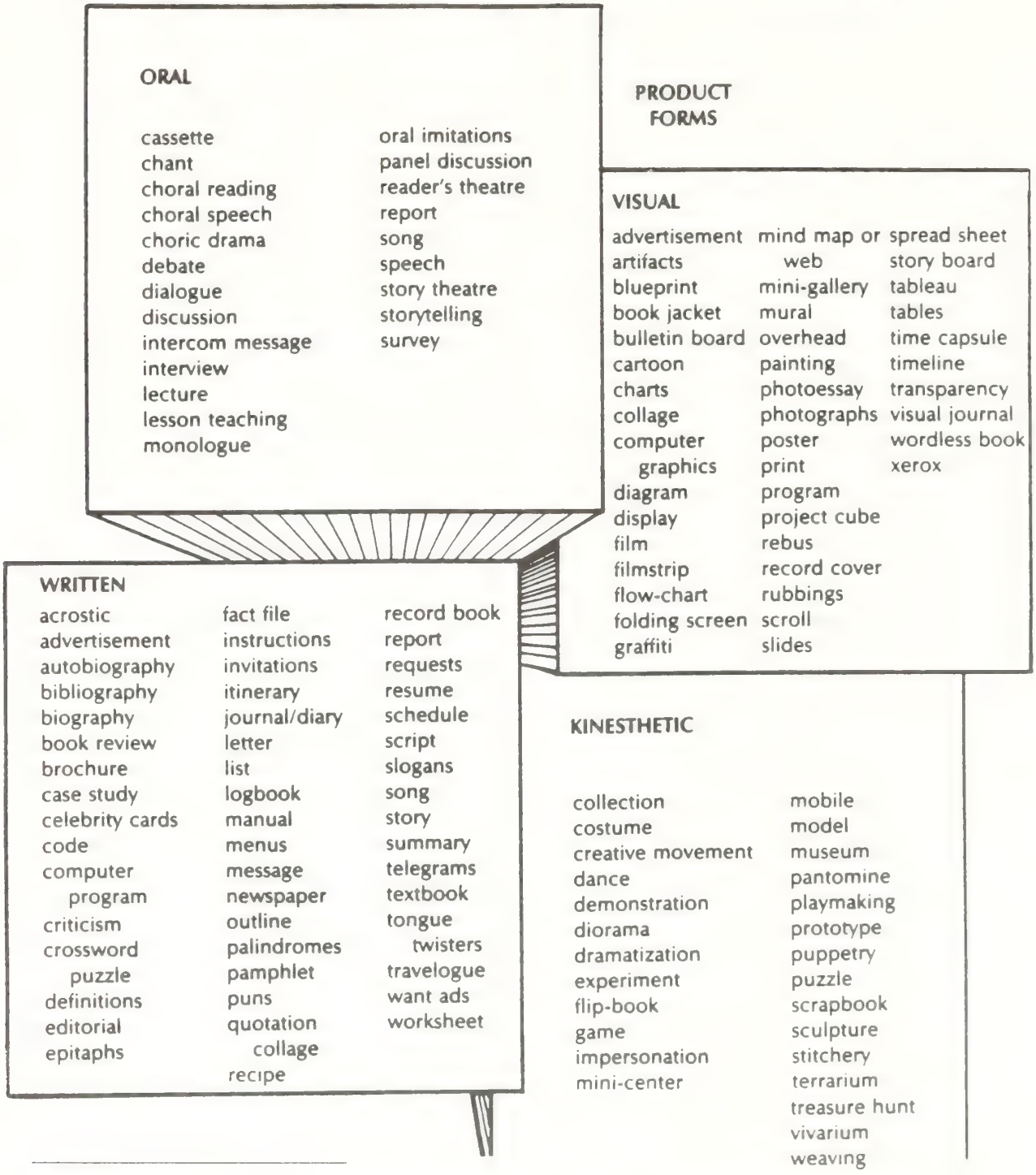
[53] From *Academic challenge: a programming guide* (p. 6:52), by Edmonton Public School District No. 7, 1988, Edmonton, AB: Edmonton Public School District No. 7. Reprinted with permission.

Student Daily Log[54]

	Date: _____ Name: _____
I completed:	I must do:
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
Evaluation of my day:	I need:
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

[54] From *Academic challenge: a programming guide* (p. 4:78), by Edmonton Public School District No. 7, 1988, Edmonton, AB: Edmonton Public School District No. 7. Reprinted with permission

Suggestions for Presenting Student Products[55]



[55] From *Academic challenge: a programming guide* (p. 6:40), by Edmonton Public School District No. 7, 1988, Edmonton, AB: Edmonton Public School District No. 7. Reprinted with permission.

Gifted and Talented — Organizational Options[56]

Organizational options which can be used flexibly include:

Option	Description	Example
Compacting	Following determination of the scope and degree of proficiency in a specific area of knowledge, students may proceed to portions of the curriculum not mastered, pursue alternative topics for specific time periods or explore concepts in more depth.	As a result of pre-test mathematics scores indicating a thorough grasp of the planned instruction in numeration, the student will work independently on alternative base systems, check for patterns in numbers or explore Fibonacci sequence.
Rescheduling	Based upon individual assessment, a more able learner may be assigned to a learning group for instruction and interaction for a particular subject area or unit of study.	The student has a great deal of ability and interest in writing poetry. For six weeks, the student will attend a division II option class in creative writing instead of a Grade 3 language arts class.

[56] From *Academic challenge: a programming guide* (p.3:18), by Edmonton Public School District No. 7, 1988, Edmonton, AB: Edmonton Public School District No. 7. Reprinted with permission.

Gifted and Talented — Organizational Options (cont'd)[56]

Option	Description	Example
Parallel curriculum	Following a comprehensive needs assessment, the curriculum is appropriately extended/enriched.	During a thematic unit study in language arts, a small group of students will pursue an interdisciplinary group study resulting in a slide-tape representation. The study needs to reflect the depth of thinking the gifted student should be experiencing; e.g., during a thematic study involving poetry, a small group may pursue an interdisciplinary study resulting in a student presentation depicting how poetry resembles a mathematics formula in its symbolic representation of imagery through metaphor or comparing poetry of different genres, from different cultures, depicting similar universal themes.
Replacing time	Students demonstrating an intense commitment and a need for specialized knowledge and skills may be accommodated through a replacement of instructional time in an alternate setting.	For a half day a month, students will work with a community mentor in his veterinarian clinic. To facilitate this working relationship students will be released from class with written parental consent. The student may contribute to the learning of classmates by presenting a summary of his or her findings through a creation of a brochure giving advice to those considering pet ownership.

[56] From *Academic challenge: a programming guide* (p. 3:18), by Edmonton Public School District No. 7, 1988, Edmonton, AB: Edmonton Public School District No. 7. Reprinted with permission.

Interest Inventory for Young Students[57]

How Do You Feel About

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Interest Inventory for Young Students[57]
Sample Completed Form

How Do You Feel About

School

Recess

Gym

Reading

Arithmetic

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Interest Inventory for Primary Aged Students[58]

Use the interest inventory to get to know your students. You will find special talents, hobbies and needs that will help you help your students.

1. In school the thing I like to do best is _____
2. Outside of school the thing I like to do best is _____
3. If I had a million dollars I would _____
4. When I grow up I will _____
5. I hate _____
6. My favourite animal is _____
7. The best sport is _____
8. When nobody is around I like to _____
9. The person I like best is _____
10. Next summer I hope to _____
11. I like to collect _____
12. My favourite place to be is _____
13. The things I like to make are _____
14. The best book I ever read was _____
15. The best TV show is _____
16. What I think is funny is _____

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58 From *The NEW reading teacher's book of lists* (pp. 220–221), by E. B. Fry, et al., 1985, Englewood Cliffs, NJ: Prentice-Hall/a division of Simon & Schuster. Reprinted with permission.

Interest Inventory for Intermediate Aged Students[59]

It can be helpful when assigning a topic for a report, suggesting a good book or selecting meaningful examples to know students' preferences and interests. Use the interest inventory during the first week of school.

1. Outside of school my favourite activity is _____
2. I work at _____. My job is _____
3. The sport(s) I like to watch best is (are) _____
4. The sport(s) I like to play best is (are) _____
5. After high school I plan to _____
6. The job I want to be doing as an adult is _____
7. In school my favourite subject(s) is (are) _____
8. The subject(s) in which I get the best grade is (are) _____
9. I would like to learn more about _____
10. My main hobbies or leisure time activity is (are) _____
11. For pleasure I read _____
12. I spend about _____ hours or _____ minutes a week reading for fun.
13. The best book I have ever read was (Title) _____
14. The book I am reading now is (Title) _____
15. My favourite magazine(s) is (are) _____
16. The part of the world that interests me the most is _____
17. When I am finished with school, I hope to live in _____
18. The kinds of books or stories I like to read are _____
19. My favourite TV show is _____
20. What makes me mad is _____
21. What makes me laugh is _____
22. My favourite person is _____
23. Next summer I plan to _____

[59] From *The NEW reading teacher's book of lists* (pp. 220–221), by E. B. Fry, et al., 1985, Englewood Cliffs, NJ: Prentice-Hall/a division of Simon & Schuster. Reprinted with permission.

Cross-referencing Chart[60]

Subject	NATURE OF STUDENT Base programming on what is known about the nature of learning and development of students and the learning style, interests and abilities of each student.	EVALUATION Make judgements about what the student is able to demonstrate relative to the knowledge, skills and attitudes all students are expected to learn.	CURRICULUM EXPECTATIONS Determine the knowledge, skills and attitudes the student is expected to learn within a specific time frame. Specify how well the student is expected to perform.	ORGANIZATIONAL AND INSTRUCTIONAL STRATEGIES Select learning environment, learning and instructional resources and organizational and instructional strategies to ensure each student is successful.	ASSESSMENT Select assessment strategies for determining what the student is able to demonstrate relative to the knowledge, skills and attitudes all students are expected to learn. Identify methods by which judgements may be made about what the student is able to demonstrate. Collect data.	COMMUNICATION Select methods of communicating information about student growth, relative to the knowledge, skills and attitudes all students are expected to learn, to students, parents and community.
Language Arts						
Social Studies						
Math						
Science						
Phys. Ed.						
Health CALM						
Option 1						
Option 2						
Option 3						

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Adapting Instructional Materials[61]

Goals	Enabling Objectives	Strategies
	Print Products	
Increase reading comprehension	Create reading anticipation	Put frames around page to help students concentrate and focus attention
Learn important concepts	Bypass reading problems	Reduce reading level
Develop vocabulary	Stimulate discussion	Address limited number of concepts
Cultivate skills such as graph, chart and map reading	Provide repetition of key elements	
	Provide review and repetition	Limit number of items per page
		Use pictures or diagrams
		Use boldfaced vocabulary words
	Avoid overwhelming the student	Use location cues to help students find pages/paragraphs with answers
	Help students understand directions	Give concise, boldfaced directions
	Audiotapes	
Develop listening skills	Simplify concepts and language	Insert stopping points in script so amount of information presented can be adjusted to teacher and student needs
Learn important concepts	Increase motivation	Use sound effect, music and dramatic techniques
	Summarize material	Provide summaries on tapes
	Bypass reading problems	
	Capture student interest	
	Activities/Manipulatives/ Games	
Involve parents	Increase motivation	Convert reading-based to hands-on activities
Develop and apply concepts	Develop concepts	
Develop another mode of learning		

[61] From *Adapting instructional materials for mainstreamed students: Issue Brief 1* (ERIC/SEP Special Project on Interagency Information Dissemination) (p. 11), by J. Burnette, 1987, Reston, VA: Council for Exceptional Children Adapted and reprinted with permission.

Adapting Instructional Materials (cont'd)[61]

Goals	Enabling Objectives	Strategies
	Microcomputer Software	
Increase skills in graph, chart and map reading	Bypass reading problems	Use simple keyboard design
	Provide repetition and feedback when needed	Use simple screen design Use help menus Use adjustable length of pauses Use self-pacing
	Capture student interest Increase motivation Illustrate concepts graphically	Provide feedback for responses Use sound effects Use graphics
Develop, research and test hypotheses		Use of tools for instantaneous graphing of scientific data
Provide greater individualization of instruction	Provide more effective use of instructional time	Track study progress Modify student discs
Provide documentation for parents, reports, IPP meetings	Enable teachers to custom design instruction	Maintain data for and print reports
Save administrative time		

[61] From *Adapting instructional materials for mainstreamed students: Issue Brief 1* (ERIC/SEP Special Project on Interagency Information Dissemination) (p. 11), by J. Burnette, 1987, Reston, VA: Council for Exceptional Children Adapted and reprinted with permission

Planning Activities and Adaptations Relative to a Curriculum Outcome[62]

Outcome	Activities	Basic Proficiencies	Adaptations
Students apply knowledge of written and spoken language.	• participate in a cooperative research project related to a current social issue • present to class using a variety of mediums	• develop appropriate team skills • develop or practise basic research skills; e.g., find material using alphabetical sequencing, use an outline format, use data to support ideas • develop or practise skills for speaking in public	• student selects a team role through pointing at activity pictures • student illustrates content of report using a variety of art materials • student uses a touch window on the computer to design a cover for a research article • student operates tape recorder, overhead or projector during presentation of report • student videotapes peers presenting report • student provides his or her contribution on tape

[62] From *Ideas and suggestions for curricular adaptations at the secondary level. Colorado effective education model* (p. 18), by J. Filbin and R. Kronberg, 1993, Denver, CO: Colorado Department of Education. Reprinted with permission.

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[26] "Cooperative planning for regular classroom instruction of students with disabilities," by R. A. Gable, 1993, *Preventing School Failure*, *37*(4), p. 19. Reprinted with permission of the Helen Dwight Reid Educational Foundation. Published by Heldref Publications, 1319 – 18th Street N.W., Washington, DC 20036–1802. Copyright © 1993.

[27] Edmonton Public School District No. 7.

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[33] ECSS Educational and Counselling Support Services (1995). 11232 – 100 Avenue, Edmonton, AB T5K 0H9. Telephone: (403) 482–3277. Contacts: Dr. Graham Ross or Patricia Schuster.

[34] ECSS Educational and Counselling Support Services (1995). 11232 – 100 Avenue, Edmonton, AB T5K 0H9. Telephone: (403) 482–3277. Contacts: Dr. Graham Ross or Patricia Schuster.

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[53] Edmonton Public School District No. 7, *Academic challenge* (p. 6:52).

[54] Edmonton Public School District No. 7, *Academic challenge* (p. 4:78).

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2

Essential and Supportive Skills for Students with Developmental Disabilities

PROGRAMMING FOR STUDENTS WITH SPECIAL NEEDS

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This document is intended for:

Students	
Teachers	✓
Administrators	✓
Counsellors	✓
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General Public	

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Introduction to the Series

Programming for Students with Special Needs is a series developed in response to a needs assessment survey conducted by the Special Education Branch of Alberta Education in the Spring of 1992.

The information provided by survey respondents has been used to guide the nature and content of the series. The respondents indicated the need for practical suggestions about instructional strategies, classroom management, preparing individual program plans and understanding the nature of special needs. They also wanted information about the availability of special education resources.

The following books are included in the series. The information in each book is interrelated and can be used to provide instruction to all students.

Book 1: ***Teaching for Student Differences***
Highlights strategies for differentiating instruction within the regular classroom for students who may be experiencing learning or behavioural difficulties, or who may be gifted and talented. It includes ideas for varying instructional time, the learning environment, resources, materials, presentation, assignments and assessments to accommodate students with diverse needs. This book contains instructional strategies for core subjects as well as by categories of differences; i.e., learning disabilities, behaviour disorders and gifted and talented. A variety of useful forms to assist teacher planning is found in the appendices.

Book 2: ***Essential and Supportive Skills for Students with Developmental Disabilities***
Includes:

- developmental checklists for communication skills; i.e., receptive, expressive, social, articulation and vocabulary
- checklists for gross and fine motor development, including colouring, graphics, manuscript printing and cutting
- charts and checklists which provide a continuum of life skills by domain (domestic and family life, personal and social development, leisure/recreation/arts, citizenship and community involvement, career development)
- checklists for mathematics, reading and writing to Grade 6
- an annotated list of other teaching resources.

Book 3: ***Individualized Program Plans***
Contains a process for IPP development and strategies for involving parents. This book provides information on writing long-term goals and short-term objectives along with case studies and samples of completed IPPs. It addresses transition planning and features forms and checklists to assist in planning.

Book 4: ***Teaching Students Who are Deaf or Hard of Hearing***
Includes information on the nature of hearing loss and the various communication systems which may be used The book contains information on amplification, educational technologies, program planning and teaching strategies.

Book 5: *Teaching Students with Visual Impairments*
Is under development in collaboration with the British Columbia Ministry of Education. The expected release date is Spring 1996.

Book 6: *Teaching Students with Learning Disabilities: Classroom Strategies*
Is under development in collaboration with the Elk Island Public Schools Regional District. The expected release date is Spring 1996.

Programming for Students with Special Needs is not intended to be a complete authority on the many disciplines associated with the education of students with special needs. In providing instruction to students with special needs, staff should utilize the support services available in their jurisdiction.

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Introduction

This book is intended to help teachers provide instruction to students with a range of developmental disabilities. It is best used in conjunction with Book 1 *Teaching for Student Differences* and Book 3 *Individualized Program Plans* in the *Programming for Students with Special Needs* series.

The material in this book is organized in four main sections. Section I, General Information, discusses the following topics:

- motor development
- handling and positioning students with physical disabilities
- augmentative and alternative communication
- instructional strategies for teaching students with developmental disabilities
- task analysis
- assessing, evaluating and communicating student growth.

Section II, Foundation Skills, provides checklists related to skills considered basic to future learning. Section III, Subject Area Learnings, offers information, checklists and scope and sequence charts for mathematics, reading and writing. Information about spelling is also provided. Section IV, Life Skills, offers charts, checklists and information about skills essential to personal well-being that support the knowledge, skills and attitudes all students are expected to learn.

The checklists in sections II, III and IV provide possible assessment items for instructional program planning. The skills in many of the checklists are provided in developmental sequence. However, it is important to remember that not all students develop skills in the same sequence and that some students may demonstrate higher-level skills without establishing competence in lower-level skills.

A number of resources have been annotated to complement the checklists (page ESS.239). It is important that teachers consult a wide range of resources in determining instructional programs for students with developmental disabilities. The Alberta Education programs of study and curriculum support materials should be the starting point for all program planning.

Section I
General Information

Motor Development

Understanding basic motor development is useful when setting functional goals for students. Motor control is developed in the following progressions:

- from head to toe:
  control of movement begins with the head and neck and continues through the shoulders, trunk, hips and legs; e.g., students achieve ability to keep rhythm to music with their heads before their feet

- from central to peripheral:
  shoulder control is a prerequisite to lower arm and hand control; e.g., students can shrug their shoulders before they can snap their fingers; similarly, hip control is a prerequisite for gaining lower limb control

- from gross to fine:
  movements using large muscle groups precede the development of fine motor movements using smaller muscles; e.g., students make large sweeping movements with a poster paintbrush before writing within lines

- from symmetrical to asymmetrical:
  children initially move both limbs in the same pattern at the same time before learning to break up the pattern to move asymmetrically changing both the timing and the actual movement; e.g., a toddler learns to walk with both hands held up before learning to swing the arms alternately; similarly, a student fingerpaints with both hands sweeping in mirror images before using scissors in one hand and turning the paper with the other

- from reflexive, to automatic, to voluntary:
  infant reflexes evolve into more controlled movements that are further refined throughout childhood; e.g., primitive first steps become normal walking and can be refined to dancing, skipping and gymnastics

- from stability to mobility:
  whether lying, sitting or standing, postural control (stability) is required before superimposing movements such as rolling, creeping, crawling and walking (mobility); e.g., children rock back and forth on their hands and knees before crawling.

Fine Motor Control

Manipulation skills are the basis for further development of functional activities such as colouring, graphic skills (manuscript printing) and cutting. Control is dependent upon stability in sitting, and develops outward from the trunk into the shoulder, elbow, wrist, hand and finally into individual finger movement. Control is developed in the following progressions:

- **Phase 1 — Reach**
  the child uses large arm movements for reaching and for opening and closing the hand to grasp objects.

- **Phase 2 — Grasp/Release**
  the child bends and straightens the elbows, turning the forearm to grasp and release objects. Although unrefined, the child begins to use individual fingers for pinching and gripping.

- **Phase 3 — Gross Control**
  the child develops wrist and individual finger movements to achieve finer control when positioning and moving smaller objects; e.g., writing implements, beads, buttons, early scissor skills.

- **Phase 4 — Refined Control**
  continuing differentiation of the finger joints and wrist for manipulating small objects, drawing, writing and colouring. The child begins to grasp with the thumb, first and second fingers (tripod grasp).

- **Phase 5 — Complexity**
  the child develops complex coordination, including tiny bending and straightening of the finger joints and use of the tripod grasp when writing. The child gains hand stability by using the fourth and fifth fingers to allow localized finger movements.

The maturity of the student's eye-hand coordination also affects the ability to draw, colour, cut and use writing implements.

The checklists Gross Motor Development (page ESS.73) and Fine Motor Control (page ESS.79) are appropriate for students who:

- appear to be developing normally
- have mild general developmental delays
- show clumsy movements or awkward gait.

These checklists should not be used with students who have medically diagnosed physical disorders such as cerebral palsy, muscular dystrophy or spina bifida. These students tend not to follow the usual sequence of development. They may exhibit abnormal movements and postures. In these instances it is recommended that a physiotherapist or an occupational therapist familiar with pediatric development be consulted.

Handling and Positioning Students with Physical Disabilities

It is important to consider the handling and positioning of students with physical disabilities. Handling is the physical manipulation of a student, while positioning is the alignment of specific body parts (or the entire body) to the most desirable postures. Effective handling is essential for optimal positioning.

Proper handling and positioning give students the best control over their own movements. Students who are handled and positioned properly are better able to participate in and focus their attention on the instructional program.

Because no two students with physical disabilities are the same, handling and positioning methods need to be individualized. Even when students have the same diagnosis, they may not have the same positioning and handling needs. Staff will want to consult with parents and physiotherapists and/or occupational therapists to establish specific handling routines and appropriate alternative positions. Discuss positions that should be avoided, what the student's cues or prompts are, and the level of assistance the student can provide.

General Lifting/Transferring Guidelines

Using correct methods when handling students will avoid injury to both students and staff members.

Staff Safety

- Decide if the lift requires one or two people. It two people are required, decide who will be the lift leader. The leader ensures both lifters are positioned properly and ready to perform the lift together; e.g., "On the count of three." The leader is usually at the upper half of the body with the greater load.
- Dress appropriately, avoiding open-toed, loose-fitting or high-heeled shoes and flowing skirts.
- Plan ahead: remove obstacles and prepare the area for the move; e.g., lock the brakes on the wheelchair, fit the commode to the toilet. Think through the steps of the move, minimizing the distance to be travelled.
- Stand close to the student and separate your feet for better balance.
- Bend at the hips and knees, keeping your back straight.
- Grasp the student firmly, controlling the head, shoulders and hips.
- While holding the student close to your body, straighten your legs in a smooth, steady manner and avoid twisting your upper body.

- Give consistent cues and prompts to the student to avoid confusion.
- When lowering the student, stand close to the equipment the student will be placed on, straightening your arms and bending your legs in a slow steady manner with your back straight.

Student Safety

- In order to gain the student's cooperation, the student should be in agreement with the move.
- Tell the student when a move is planned rather than grasping the student without warning.
- Ask the student to assist with the move in a prearranged manner. The student should help as much as safety guidelines allow; e.g. lock brakes, unfasten seat belts, grasp support, lean forward. Allow time to respond to your cues.
- Support the student's weight securely around the trunk. Prevent arms and legs from flailing.

Positioning

Some students require help changing positions. Spending long periods of time in the same position is not only uncomfortable but can lead to serious problems like pressure sores, shortened muscles, deformities and impaired respiration, circulation and digestion. All students with physical disabilities should spend time in a number of therapeutically approved positions each day. Some positions may also give students a chance to use muscles that are under developed.

General Guidelines

- Generally, the student's position should be changed every half hour. An hour is the longest a student should stay in one position, unless specified by an occupational or physiotherapist.
- A change in place is not the same as a change in position. A student who has been sitting in a wheelchair could switch to a standing position or prone-lying position over a wedge to allow the hips to stretch out and remove pressure from the buttocks, thighs and back.
- Grasp the student firmly, controlling the key points of the body: the head, shoulders and hips. Discourage the student from stiffening by using relaxation techniques prescribed by an occupational or physiotherapist (gentle tone of voice, slow stroking, etc.).
- Students with little postural tone require complete support and should be held firmly around the trunk, not pulled by the limbs.

Positioning in Wheelchairs

- Place the student's hips as far back in the chair as possible. If necessary, lean the student forward and pull the hips until they reach the back.
- Generally, hips should be bent to a minimum of 90 degrees (with the exception of hip joint limitations; e.g., contractures).
- Fasten the seat belt or pelvic strap snugly across the hip joints.

- Bring the shoulders and upper arms forward and inward, fastening the chest and shoulder straps if prescribed.
- Position the legs a hip width apart with the feet securely supported (and fastened, if prescribed) on the footrests.
- Ideally, students should be able to bring their heads into the midline and tuck their chins downward.
- Don't add additional straps to a wheelchair without professional consultation.

Side-lying Positioning

- Roll the student onto the side, placing the back against something firm and stable.
- Bend the upper leg to a 90 degree angle at the hip and knee and support it with a wedge or pillow.
- Place a wedge or pillow under the head to maintain neck and spine alignment and flex the neck forward while tucking in the chin.
- Bend the lower arm comfortably and move the upper arm forward so it is free to reach.
- Alternate sides.

Prone Wedge Positioning

- Roll the student onto the stomach.
- Lift the upper body by placing your arm across the student's chest while keeping the arms extended over the head.
- Place the student on a wedge so that both arms are over the edge of the wedge. The student's hands or forearms should touch the floor.
- If supplied, place a pommel/abductor wedge between the upper legs to discourage scissoring. Fasten all appropriate straps.

Augmentative and Alternative Communication

There are a number of strategies to help students with disabilities communicate effectively and efficiently.

Augmentative communication is the use of aids or techniques to supplement existing vocal or communication skills; e.g., a student with cerebral palsy who has limited speech may use pictures to communicate.

Alternative communication refers to the communication methods used by a student who cannot speak or write in traditional ways; e.g., a student who is deaf may use sign language to communicate.

Non-disabled speakers communicate at a rate of about 150–250 words per minute. Individuals using augmentative or alternative communication systems usually communicate at a rate less than 15 words per minute. This will affect the choice of teaching and questioning strategies.

It is important to teach communication skills that are directly relevant to the student's life. Specific learner expectations for communication programs will vary for individual students; e.g., one student may use a communication board with pictures, while another might point to words. Where possible, a combination of modes will enhance a student's opportunities to communicate.

There are three main components to an augmentative and alternative communication system model:

- *Access* is the way the student selects the message; e.g., the student may touch a computer screen with a finger or an elbow to activate the electronic voice.
- *Process* is combining symbols and/or pictures and/or words to compose the message.
- *Output* is the way the message is sent to the intended receiver; e.g., synthesized speech.

Advice and assistance regarding augmentative and alternative communication are available from the agencies listed below.

Service Agencies

Alberta Children's Hospital
1820 Richmond Road S.W.
Calgary, AB T2T 5C7
Telephone: (403) 229–7044

Alberta Family and Social Services
(Consult the local telephone directory.)

Assistive Devices Service
c/o Glenrose Rehabilitation Hospital
Department of Communication Resources
10230 – 111 Avenue
Edmonton, AB T5G 0B7
Telephone: (403) 471–2262

Coordinated Assessment Services for the Exceptional (C.A.S.E.)
Crystal Park School
9351 – 116 Avenue
Grande Prairie, AB T8V 6L5
Telephone: (403) 539–0333

Edmonton Public Schools
Consulting Services
Belvedere Office
13359 – 62 Street
Edmonton, AB T5A 0V5
Telephone: (403) 473–5616

Regional Educational Assessment and Consultation for the Handicapped (R.E.A.C.H.)
Calgary Board of Education
Emily Follensbee Centre
5139 – 14 Street S.W.
Calgary, AB T2T 3W5
Telephone: (403) 777–6983

Technical Resource Centre
Society for Technology and Rehabilitation
200, 1201 – 5 Street S.W.
Calgary, AB T2R 0Y6
Telephone: (403) 262–9445

Symbol Sources
Everyday sources are store catalogues, dairy companies, newspaper food flyers, children's books, magazines, photographs and on-the-spot drawings.

A sampling of commercial sources follows:

ATTAINMENT COMPANY, INC. – P.O. Box 930160, Verona, WI, 53593–0160, USA
Telephone (608) 845–7880

BLISS – EBSCO Curriculum Materials, Box 11542, Birmingham, AL, 35202, USA

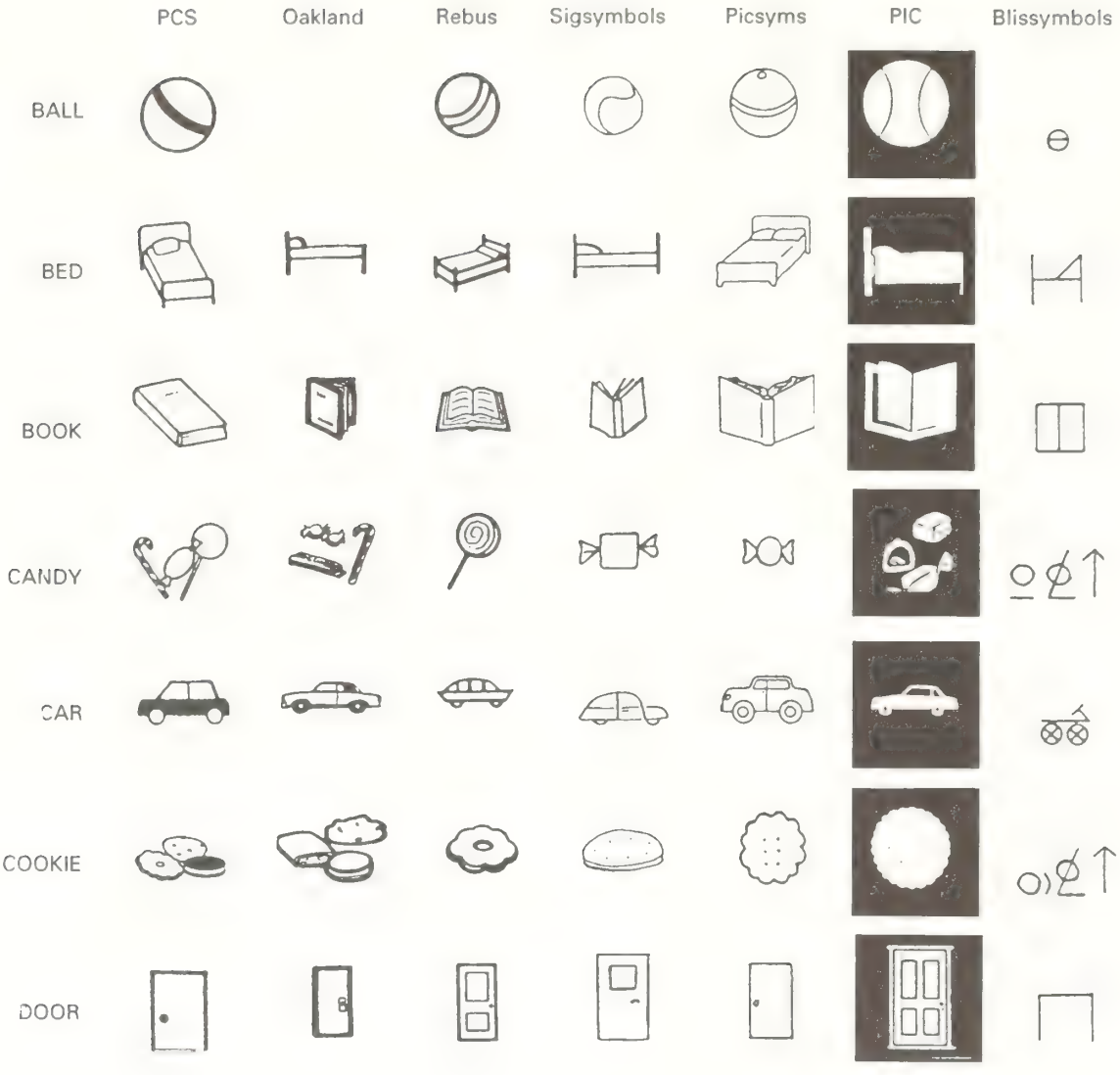
CORE PICTURE VOCABULARY – Don Johnston Developmental Equipment, Inc., P.O. Box 639, 1000 North Rand Road, Building 115, Wauconda, IL 60084–0639, USA
Telephone 1–800–999–4660

PICSYMS – Baggeboda Press, R.R. 1, P.O. Box 2315, Unity, ME, 04988–9716, USA

SELF-TALK – Photo Sticks, Photo Cue Cards, Peel and Put, Pictures Please, c/o Communication Skill Builders, a division of the Psychological Corporation, 3830 East Bellevue, P.O. Box 42050–CS5, Tucson, AZ, 85733, USA
Telephone 1–800–387–7278

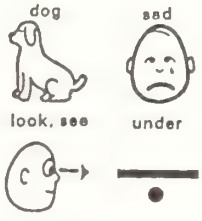
Pictogram samples and sources are included on the following pages.

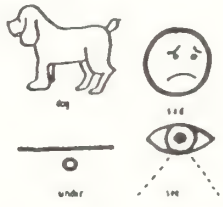
Examples of Pictograms[1]



[1] From *Augmentative communication: an introduction* (p. 93), 1986, Rockville, MD; American Speech-Language-Hearing Association. Reprinted with permission.

Pictogram Samples and Sources[2]

SYMBOL SET/ DISTRIBUTOR	EXAMPLES	QUANTITY/ SIZE	COMMENTS
PICTOGRAM IDEOGRAM COMMUNICATION (PIC) Developmental Equipment P.O. Box 639 Wauconda, IL 60084		400 2 × 2 5/8 × 5/8	White foreground pictures on black background intended to minimize figure-ground discrimination for persons with visual impairment; includes cards and stickers.
PICTURE COMMUNICATION SYMBOLS Mayer-Johnson Company P.O. Box AD Solana Beach, CA 92075		1800 1 × 1 2 × 2	Simple line drawings organized by categories in binders (See description in this chapter).
TOUCH 'N TALK Imaginart Communications Products P.O. Box 1868 Idyllwild, CA 92349		420 1 1/2 × 1 1/2 5/8 × 5/8	Simple black-and-white line drawings representing a variety of language concepts; pressure-sensitive stickers, with doubles presented of most commonly used pictures.

SYMBOL SET/ DISTRIBUTOR	EXAMPLES	QUANTITY/ SIZE	COMMENTS
COMMUNIMAGE Asso. de Paralysie Cerebral du Quebec 525 Boul. Hamel Est Quebec, QC G1M 2S8		600 3/4 × 3/4 1 1/4 × 1 1/4 2 × 2	Black-and-white line drawings are presented with French labels; target audience is children age 3-10 years; 26 categories are included.
OAKLAND PICTURE DICTIONARY P.O. Box 639 Wauconda, IL 60084		500+ 1/2 × 1/2 1 × 1 2 × 2	Simple black-and-white line drawings divided into 20 categories; includes alphabetical and categorical indexes.
PEEL AND PUT Communication Skill Builders 3830 East Bellevue Tucson, AZ 85733		880 2 × 2	Color illustrations on pressure-sensitive stickers; categories represented include nouns, verbs, prepositions indices list by sound, language concept, category.

[2] From *Communications programming for persons with severe handicaps: vocal and augmentive strategies* (pp. 193–194), by C. R. Musslewhite and K. W. St. Louis, 1988, Boston, MA: College Hill Press. Reprinted with permission.

Augmentative Communication Devices and Alternate Keyboards[3]

Communication Boards and Symbols

Communication boards usually involve a grid system of squares containing symbols or pictures (pictograms). The number of squares can range from two; e.g., for "yes" and "no," to 26 for the alphabet, to 400 or more that can be combined to form complex messages.

They can be as small or as large as the student can stretch, made of paper, laminated cardboard or fitted into a commercial plastic holder. A student can have an all-purpose board or several to fit a variety of situations; e.g., curriculum themes. It is also possible for one student to have a variety of communication devices ranging from electronic speech output boards, to pocket picture wallets, to the use of natural speech with close friends and family members.

Electronic Devices

There is a wide range of electronic products available and there are rapid technological advances in this field. Although it is not possible to list them all, they include:

- small, hand-held keypads, with various options including screen displays, printout and voice output
- hand-held picture display devices with voice output
- programmable keyboards of various sizes, with or without voice output
- electronic picture communication books with voice outputs
- user-programmable devices which may include auditory scanning.

Home computers can also be adapted to include touch screens, expanded keyboards and overlays that require a lighter, less-precise touch.

Pointing and typing aids, such as headsticks, mouthsticks, handsplints and optical light beam devices are also available.

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[3] From "Getting started with augmentative communication," by N. A. Chedd, 1995, *Exceptional Parent*, *25*(5), pp. 34–35. Reprinted with the expressed consent and approval of *Exceptional Parent*, a monthly magazine for parents and families of children with disabilities and special health care needs. Subscription cost is $24 per year for 12 issues; call 1–800–247–8080. Offices at 120 State Street, Hackensack, NJ 07601

General Considerations for Communication Systems

Consider the following before choosing a communication system.

- What is the age and diagnosis of the student?
- What are the student's physical limitations?
- What is the student's hearing status?
- What is the student's visual status?
- Does the student have the ability to imitate speech and gestures?
- Is the student displaying the intent to communicate; e.g., eye contact, pointing?
- Is the student motivated and interested in communicating?
- Does the student have the motor dexterity required for manual signing?

For help determining the most appropriate communication system, see a speech-language pathologist.

Alternate Keyboards

Technology is an increasingly popular resource for students with disabilities. When looking at the area of written communication, there is a range of technologies from "low-tech" options such as typewriters, to more complicated word processing units and computers. It is important to consider the student's individual needs for written output. A highly complex computer system may not be indicated in all cases.

Remember to consider the time required for evaluation and training, the feasibility of classroom implementation and the support that the technology may require. Some software lacks the adaptability required for students with special needs.

Computers can be used:

- as alternative communication tools to help students participate more effectively in their educational programs
- for cognitive training or retraining
- for visual perceptual training
- as tools to compensate for difficulties in the manual production of written work
- for recreational, reward or motivational purposes.

Computer technology can provide opportunities for students to work more independently in the classroom.

Alternate keyboards may be useful for students who:

- display difficulties producing written work to an acceptable level, including the quality and volume of work completed
- have visual impairments, to help with note-taking and written assignments
- have learning disabilities that require both alternate keyboards and computer technology to help with organizing and sequencing large quantities of information (particularly older students)
- need help improving eye-hand coordination, visual memory and motor planning skills required to manage materials.

When Choosing Alternate Keyboards, Consider:

- devices that are simple to set up, operate and maintain
- the availability of device(s) for trial use
- portability within the educational setting and between home and school
- whether or not keyboard needs to be interfaced with any computer system at home or at school.

When Choosing Software, Consider:

- that the software should be developmentally appropriate and able to provide for gradual and/or successive increases in skill levels within the material presented
- if the software can be accessed through a variety of means; e.g., switches, joysticks, mouse
- if the software can be adapted for specific learning objectives; e.g., response rates, feedback methods.

Possible Hardware Adaptations:

- keyboard modifications: keyguards, key latches
- alternate input devices: expanded and programmable keyboards; e.g., Intellikeys, Unicorn, direct selection pointing devices, Braille keyboards; e.g., Navigator, Braille note-takers; e.g., Braille 'n Speak
- addition of switches.

For help determining the most appropriate communication system, consult an occupational therapist.

The Application of Switches and Battery-powered Toys

Students with physical disabilities may be limited in their opportunities to explore, manipulate and play in their world. However, switches can help. Switches are simple devices that can be attached to a toy or an appliance. Simple switches, that can be activated by the student with physical disabilities, can be used within the classroom for a variety of purposes and may help achieve developmental goals, including:

- Cognitive Goals:
  to understand cause and effect, increase attending skills (both visual and auditory), develop visual tracking and object permanence, encourage persistence and create desire for trial and error, generate discrimination and memory skills and facilitate picture identification.

- Motor Goals:
  to develop increased tolerance of various positions, encourage head control, facilitate reach and grasp, isolate specific motor movements and power mobility.

- Communication Goals:
  to develop choice-making skills, provide ability to relay a single message, encourage the following of simple commands, stimulate motivation and provide initial training of skills needed to activate an electronic communication device.

- Social and Self-care Goals:
  to increase awareness of environment and others, develop independent play skills, decrease non-purposeful and self-stimulatory behaviours and develop self-feeding and toilet training.

Consider:

- what the switch will activate: battery-powered toys, tape recorders, battery-powered lights, computers
- access: ease of switch activation and switch-site selection
- main purpose of switch use
- practicality of integrating the switch into daily classroom programming: simplicity of set up
- the need to provide variety of switch activities: students may become bored with simple toy devices
- interfacing more sophisticated technology with the single switch.

For more information on switches, see the list of agencies provided on pages ESS.7–8 or contact the Canadian National Institute for the Blind, usually listed under that name in local telephone books, or the Telephone Pioneers of America at (403) 493–5547.

Instructional Strategies for Teaching Students with Developmental Disabilities

This section provides an introduction to teaching methods that have been used successfully in providing instruction to students with developmental disabilities. Providing effective instruction to students with developmental disabilities requires that staff use a variety of instructional strategies. Many of the strategies used in regular classrooms are appropriate for students with special needs. A wide range of strategies is provided in *Teaching for Student Differences*, Book 1 of the *Programming for Students with Special Needs* series.

Establishing Classroom Rules and Expectations

The first line of intervention in any classroom is to clearly establish expectations and classroom rules. This proactive strategy will stop or interfere with most problem behaviours before they occur. During the first weeks of schooling, classroom rules and expectations should form the nucleus of initial instruction and should be reviewed frequently in the context of regular classroom routines. The focus of instruction should be to help students:

- comply with instructional and behavioural requests
- learn self-control and self-motivation — moving from external motivation and control to internal monitoring and control. Students with developmental disabilities are more dependent on external, and often artificial, cues and rewards in their task orientation
- learn problem-solving skills in a social and academic setting.

Consequences

A consequence is an action in response to a particular behaviour. Reinforcers and correction are two types of consequences.

Reinforcers

A positive reinforcer strengthens the actions it follows by providing a reward for the action. It provides incentive to perform the skills or behaviours being taught.

It is important to consider reinforcement as an adaptation. All students need legitimate reinforcement, but it is important to guard against overuse. Careless use of extrinsic rewards can undermine students' intrinsic motivation. Students may need extra incentive to get them to begin exhibiting desired behaviours. Start by using potent and even artificial reinforcements and gradually shift to more natural forms. If the skills and activities selected to be taught are interesting, relevant and meaningful to the student, the instructional activities should be highly motivating.

The careful use of positive reinforcement techniques provides the most effective and durable strategy for the shaping of student behaviour. Reinforcers that are individually determined, that are closely related to the desired behaviour and that are immediately and systematically administered are the most powerful reinforcers. Remember that what the teacher thinks the student should value may not be what the student values.

To Determine Positive Reinforcers:

- ask the student
- ask others who are familiar with the student's likes and dislikes
- observe the student over a period of days in natural settings; watch what he or she likes to do, what activities are chosen, what items are frequently asked for
- structure the environment to observe a period of reinforcement in which the student can sample a variety of reinforcers
- use a checklist of reinforcers — teacher made or commercial; if the student cannot read, the teacher can complete the checklist
- use a list of pictures of known reinforcers from a reinforcer menu.

Types of Reinforcers:

- objects — food and other tangible items; e.g., toys, stickers, tokens
- activities/events — listening to music
- social reinforcement — any social behaviour that increases or maintains student behaviour; e.g., praise, smiles, eye contact.

Remember to use a variety of reinforcers whenever possible to ensure potency of those reinforcers.

Reinforcers Should Be Provided:

- immediately
- enthusiastically
- with eye contact
- with a description and demonstration of the desired behaviour.

To ensure that the learning environment is positive, students should receive at least four positive reinforcers for every negative consequence received.

Rules for Delivery of Consequences

Consequences:

- must be delivered within a specified time of the behaviour so that the student connects the two
- must be understood by the student
- must be appropriate to the behaviour; if you want the behaviour to increase use a reinforcer; if the behaviour is not appropriate, teach the appropriate behaviour.

Correction

Negative consequences are intended to decrease the occurence of undesirable behaviours. They can temporarily stop or suppress inappropriate behaviours. They can be useful in teaching a student which behaviours are inappropriate and that undesirable consequences occur following inappropriate behaviour. Negative consequences encourage self-control through the recognition that there is a choice of behaviours and subsequent consequences. Positive strategies help build or

increase appropriate behaviours. A type of consequence that assists in the teaching procedure is correction. Correction is used to show the student the "right" way to perform the task. The student is assisted through that portion of the skill which he or she has failed, using the levels of prompting described on page ESS.21 to ensure success. It is important to avoid allowing the student to repeat an error more than once to prevent incorrect learning.

When Delivering Correction:

- use within the specified time (remember to consider the time required to process and put into action due to physical/motor/language processing restrictions)
- use a calm positive manner
- use only as much physical assistance as is necessary
- individualize correction procedures to the student and to the type of task
- use only when appropriate.

Tip

Labelling inappropriate behaviour; e.g., "Don't hit, Don't run, Don't hit your head," only serves to reinforce the behaviour and increase its value (a way to get your attention). Inappropriate behaviours will decrease far more rapidly with the use of correction. Label the appropriate alternative behaviour that is to replace the inappropriate behaviour. For example, use "Please walk in the halls," rather than "Don't run." Then use the required level of prompting to ensure follow through of the required response. Praise students' attempts to use the appropriate behaviour.

For more information on setting up a behaviour management plan, please see Book 1 *Teaching for Student Differences* in the *Programming for Students with Special Needs* series.

Considerations when Making Instructional Adaptations

Any adaptation in sequence, materials and or method that a student uses in natural environments should be briefly explained in the student's assessments, reports or IPPs to ensure that the ability of the student is clearly and accurately communicated.

Types of Individualized Adaptations:

- use or create materials and devices; i.e., enlarged print, switches
- provide personal assistance
- identify levels of assistance
- alter skill sequences; e.g., locate a table, put things down before ordering food in the cafeteria
- adapt rules; e.g., allow peers to push the wheelchair in a relay.

Choosing Adaptations:

- verify the appropriateness and the effectiveness of the adaptation in the environment where it will be used
- choose an adaptation for a particular student in a particular situation; if circumstances change, the adaptation may need to be changed
- avoid overuse to prevent students from becoming dependent on a particular adaptation

- use adaptations that allow participation in environments that are critical for the student; select adaptations after selecting the environments and the activities
- allow the student time to try the adaptation; allow multiple trials.

For more information on adapting programs, please see Book 1 *Teaching for Student Differences* in the *Programming for Students with Special Needs* series.

Chaining

Chaining involves breaking a target behaviour down into its smallest components in order to teach the parts one at a time.

Forward Chaining

The first behaviour in the chain is the first behaviour taught. A chain should begin at the level at which the student is able to successfully learn the first behaviour and should move in successive steps toward the target behaviour.

Backward Chaining

Backward chaining progresses in the opposite direction. The student is physically prompted through all the steps in the chain and then the last step is taught first. The teaching progresses in sequence until all the steps are learned. This method can be useful for linking the natural reinforcement inherent in the completion of the activity with the performance of that same activity.

As with shaping, prompts can be used to encourage the development of behaviours in a chain.

Chaining begins with a task analysis of the target behaviour.

Task Analysis[4]

Task analysis is a process of breaking up a large task into teachable units. The strategy is widely used to provide instruction to students with special needs. Teachers develop task analysis in a number of ways. They may:

- perform the activity themselves and record the steps
- observe students who are demonstrating the steps
- use or adapt task analyses included in curriculum, periodicals or books.

The life skills charts found on pages ESS.144–186 provide a continuum of specific learner expectations related to the general learner expectations used in this document. In some instances, it may be necessary to further analyze a specific expectation and describe it in smaller steps to clarify precisely what the student needs to learn. In programming for students with special needs the degree of specificity in the sequencing of steps will vary. For some students, the steps may be discrete, for others the steps may be more generalized. The needs of the student and the student's familiarity with the task are prime considerations when separating the task into less complex steps.

[4] From *Training in the teaching research based model*, by H. D. Fredericks, Monmouth, OR: Instructional Development Corporation. Adapted and reprinted with permission.

Planning Instruction Using Task Analysis[4]

Initial planning for specific instruction in a task should specify:

- what the student will be able to do when a particular task is learned
- how the learning will be measured
- the conditions under which the response is to occur
- how well the student will have to demonstrate the learning of the task.

For more detailed planning:

- select a task the student needs to learn
- analyze the task by breaking it into sequential steps
- establish baseline information:
  - guide the student through the task one to three times
  - ask the student to perform the task
  - reinforce the student for being on task, accordingly
  - correct student errors by cuing and directing back to task
- record baseline information for two trials on the first day the student attempts the sequence of steps to achieve the task
- if the student cannot complete any of the steps in the sequence independently, provide instruction and demonstrate the step in relation to the whole task. Sequence groups of similar steps. When a group of steps is completed, they can be reinserted into the whole sequence of steps required to achieve the task.

When the student has performed a step successfully over a period of two of three days, move to another step in the sequence and determine if the student can now demonstrate independence for the entire task.

If the student fails to demonstrate expected behaviour on a specific step in five consecutive sessions, modify the instruction; e.g., additional non-verbal or verbal support; alter wording, timing, cues or materials; add or modify the steps to task analysis.

Students can be assisted in learning the steps for a particular task in different ways. The steps may be linked together in the specified sequence, a reversed sequence or taught as whole. Pages ESS.25–42 provide examples of tasks which were analyzed and recorded in chart form to help staff indicate the student's learning, relative to specific steps. Remember that students may not always follow the teacher-determined sequence but may still achieve the same goal.

When providing instruction in selected steps of a task, graduated levels of help may be required. A sample of a task analyzed with levels of assistance identified and a blank form are provided on pages ESS.23–24.

[4] From *Training in the teaching research based model*, by H. D. Fredericks, Monmouth, OR: Instructional Development Corporation. Adapted and reprinted with permission

Instructional Prompts

Instructional cues or prompts are those extra stimuli that are provided in instructional sessions to facilitate a correct response. During the teaching of a task, a range of instructional prompts may be needed. Carefully document the use of additional prompts to:

- minimize student dependence
- ensure maximum clarification of expectations for the student
- facilitate student's learning of the desired behaviour.

The assessment process should determine for each student which prompts will be effective and which prompts should be provided to facilitate correct responses on each step of a routine task. For some students, a verbal prompt will allow a more independent response than a gesture. For other students a verbal prompt is more intrusive than a slight hand movement. Most often, the least to the most intrusive prompt hierarchy is used. The hierarchy is included on page ESS.21.

Strategies for Reducing Prompting

During instruction, teacher assistance is used to ensure that students achieve the critical effect of routines with as few errors as possible. Part of the use of prompts must involve a systematic plan to reduce the student's dependency on prompts until the student is able to perform the behaviour solely in response to natural cues.

Fading

The technique of reducing prompting levels is termed fading. When fading procedures are properly utilized, the student maintains existing high levels of performance. Fading procedures must be gradually applied, moving down the levels of prompts. The amount of assistance is gradually reduced until the student performs the skill independently. Fading can also include delaying a prompt until the student initiates the target behaviour.

Shaping

Shaping refers to the reinforcement of successive approximations of increasingly successful attempts at a complex response. Shaping begins with reinforcement of the closest approximation of the target behaviour that exists in the student's repertoire, and then systematically builds on slight changes in that behaviour, leading toward the target behaviour itself.

Involve students in shaping by:

- defining the target behaviour
- listing all possible steps in achieving the behaviour
- reinforcing the first close approximation of the desired behaviour; the required level of performance is then gradually increased and only responses that move in the direction of the target behaviour are reinforced.

In this way, the student's behaviour is shaped toward the target behaviour. Shaping can be used with various levels of prompts to further encourage the development of the behaviour.

A typical prompt hierarchy consists of:

- (I) independent — natural cue or stimulus (bell rings to tell the student it is time for recess)
- (G) gestural prompt — a gesture or demonstration that provides information regarding the nature of the required response (head shake to indicate disapproval)
- (IV) indirect verbal prompt — the use of words to imply that some behaviour needs to occur (where do you need to go next?)
- (V) direct verbal prompt — clearly states the behaviour that needs to happen (verbal or some alternative mode of communication)
- (M) model — any visual or physical demonstration that directly shows the student the correct completion of the activity/task and encourages the student's imitation of that behaviour
- (MP) minimal physical prompt — slight physical contact to guide a student toward a behaviour
- (PP) partial physical prompt — the teacher physically starts the student in the desired behaviour but then releases the student to complete the behaviour, or part of the student's physical movement is moulded by the teacher
- (P) full physical prompt — the student is taken through correct completion of the activity/task, the physical movement of the student is completely moulded by the teacher.

The most effective cues are those natural to the situation in which the desired behaviour is to occur. Prompts must eventually be removed on the basis of the data collected on a student's performance. If not removed at the appropriate time, students quickly become dependent upon artificial or intense levels of prompts.

Probes should be conducted at least once a month to assess maintenance of previously learned skills and once every two weeks to observe progress that may have gone undetected on skills currently under instruction. Probes determine whether the student has acquired greater independence in the performance of routine steps (or chains). Probes should also be conducted following skill acquisition to

assess generalization of these new skills to other activities or environments.

All levels of prompting are not likely to be used for each routine. The levels of prompting must be individualized to the student and the task.

Routine Sheet (Task Analysis)

STUDENT'S NAME _____

ROUTINE _____ PROGRAM _____

	DATE											

PROMPTING HIERARCHY

I – Independent
G – Gesture to column
IV – Indirect verbal
What do you need to do next?
V – Direct verbal, "You need to borrow"
M – Model using sample
MP – Minimal physical prompt
PP – Partial physical prompt
P – Student is led through the response

Routine Sheet (Task Analysis)
Sample Completed Form

STUDENT'S NAME _____

ROUTINE Subtraction (probe data taken on third question each day) PROGRAM _____

	DATE	Oct. 30	Oct. 31	Nov. 1	Nov. 2	Nov. 3	Nov. 6	Nov. 7	Nov. 8				
Look at 1's column		V	V	IV	IV	IV	I	I	I				
Decide if the top number is smaller		V	V	V	V	IV	IV	IV	I				
(IF yes) Borrow 10 from the next column		P	P	M	M	M	V	V	V				
Mark 10s column 10 less		P	P	M	M	M	V	V	V				
Add 10 to 1s column		P	P	M	M	M	V	V	V				
Subtract the 1s column		V	V	V	G	G	G	I	I				
Subtract the 10s column		V	V	V	G	G	G	I	I				

PROMPTING HIERARCHY

- I – Independent
- G – Gesture to column
- IV – Indirect verbal
  What do you need to do next?
- V – Direct verbal, "You need to borrow"
- M – Model using sample
- MP – Minimal physical prompt
- PP – Partial physical prompt
- P – Student is led through the response

Task Analysis Sample 1
Record of Student Performance

STUDENT'S NAME _____

TASK: Mailing a letter

Date											
Collects all necessary materials											
Demonstrates transportation safety enroute											
Safely manoeuvres parking lot and streets											
Enters post office											
Moves to service area											
Selects appropriate line											
Waits in line											
Follows movement of line											
Communicates number/type of stamps desired											
Removes money from purse/wallet											
Pays cashier after total given											
Secures any change/replaces in wallet or purse											
Secures stamps/moves away from counter											
Places stamps in purse/wallet as necessary											
Moves to service table											
Checks envelope for necessary information											
Checks envelope seal for closure											
Moistens glue side of stamp											
Attaches stamp to envelope correctly											
Moves to mailbox											
Opens mailbox door											
Inserts letter(s) into mailbox											
Collects all personal belongings											
Exits post office											
Safely manoeuvres parking lot and streets											

correct response +
incorrect response –

See footnote reference #4 on page ESS.252.

Task Analysis Sample 2
Record of Student Performance

STUDENT'S NAME: _____

TASK: Withdrawing money from bank

Date											
Collects material necessary to access account											
Demonstrates rider safety enroute											
Safely manoeuvres parking lot and streets											
Enters bank											
Moves to service area											
Removes necessary material from pocket											
Chooses correct form											
Completes required information on withdrawal form											
Indicates amount to be withdrawn in numbers and words											
Follows movement of line											
Gives teller withdrawal slip and bank book											
Waits for cash											
Checks cash received											
Places cash in wallet/places wallet in pocket											
Exits bank											
Safely manoeuvres parking lot											
Demonstrates rider safety enroute home											

correct response +
incorrect response –

See footnote reference #4 on page ESS.252.

Task Analysis Sample 3
Record of Student Performance

STUDENT'S NAME: _____

TASK: Ordering food in a fast food restaurant

Date											
Collects all necessary materials											
Demonstrates transportation safety enroute											
Safely manoeuvres parking lot and streets											
Enters fast food restaurant											
Chooses and waits in line											
Follows movement of line											
Determines order											
Determines if has enough cash											
Communicates order to restaurant personnel											
Communicates whether take out or eat in order											
Pays for order											
Collects necessary utensils											
Collects condiments											
Moves aside for line movement as needed											
Collects order											
Chooses seating space											
Uses napkin and flatware appropriately											
Displays good table manners											
Eats meal											
Collects and disposes garbage											
Replaces tray											
Collects personal belongings											
Exits fast food restaurant											

correct response +
incorrect response –

See footnote reference #4 on page ESS.252.

Task Analysis Sample 4
Record of Student Performance

STUDENT'S NAME: _____

TASK: Washing and drying dishes

Date											
Obtains items needed to wash dishes											
Sets up dish rack											
Scrapes dishes											
Inserts plug in one side of sink; adds soap											
Fills one side of sink with warm water for washing											
Fills other side of sink with warm water for rinsing											
Washes each dish or utensil											
Rinses each dish or utensil											
Places dishes or utensil in dish rack											
Selects dish towel											
Dries dishes or utensils											
Places dishes in cupboard											
Places utensils in drawer											
Hangs towel on towel rack											
Drains water from sinks											

correct response +
incorrect response –

See footnote reference #4 on page ESS.252.

Task Analysis Sample 5
Record of Student Performance

STUDENT'S NAME: _____

TASK: Toiletting

Date											
Remains dry for one-hour time period											
Sits on toilet for five minutes											
Eliminates into toilet											
Eliminates into toilet within five minutes											
Remains dry between times placed on toilet											
Indicates need to use toilet when asked											
Indicates need to use toilet without being asked											
Uses toilet independently with help dressing and undressing: • enters bathroom											
• prepares toilet for sitting											
• sits and eliminates into toilet											
Uses toilet independently with help with fasteners only: • enters bathroom											
• requests help with fasteners											
• pushes down pants below knees/pulls up shirt											
• sits independently and eliminates											
• pulls up pants to waist/straightens; pulls dress or shirt down before leaving											
• requests help with fasteners											
Toilets self without help dressing: • enters bathroom											
• unfastens fasteners											
• pushes down pants/pulls up skirt											
• sits independently and eliminates											

Task Analysis Sample 5 (cont'd)

Date											
• pulls pants up to waist/straightens dress or skirt											
• refastens fasteners											
Stands at toilet or urinal to urinate: • unzips/unfastens pants											
• stands at urinal/toilet											
• urinates into urinal/toilet											
• zips/fastens pants before leaving											
Uses toilet tissue correctly: • rolls and tears off appropriate amount of paper											
• wipes self											
• drops paper into toilet, washes and dries hands											

correct response +
incorrect response –

See footnote reference #4 on page ESS.252

Task Analysis Sample 6
Record of Student Performance

STUDENT'S NAME: _____

TASK Understanding concepts of work

Date											
Knows three different "jobs" that students have in the classroom											
Describes two leisure activities											
Describes three differences between work and leisure activities											
Describes occupations of friends and relatives											
Knows reasons people work: • make money											
• meet people											
• occupy time											
• contribute as a productive member of community											
• enjoy activity											
Knows daily schedule of worker: • gets up at designated time											
• takes care of personal needs											
• packs lunch											
• takes responsibility for transportation											
• reports to supervisor											
• follows work routines/directions											
• takes breaks as scheduled											
• checks out with supervisor											
Knows good work habits that help people keep their occupations: • good attendance											
• accepts supervision											
• follows directions											
• works continuously											

Task Analysis Sample 6 (cont'd)

Date											
• in on time											
• works independently											
• has positive attitude											
• cleans up											
• handles emotions appropriately											
Knows reasons people lose their occupations: • not productive											
• interacts inappropriately with others											
• doesn't follow directions											
• does poor quality work											
• has negative attitude											
• late for work											
• is absent frequently											
• handles emotions inappropriately											
Understands relationship between work done and paycheck											
Understands benefits portion of check											
Understands deductions and take home pay											

correct response +
incorrect response –

See footnote reference #4 on page ESS.252.

Task Analysis Sample 7
Record of Student Performance

STUDENT'S NAME: _____

TASK Painting

Date											
Keeps fingers and paint material out of mouth											
Paints on designated surfaces only: • large area											
• small area											
Produces a finger painting: • uses fingers											
• uses whole hand											
• covers most of paper											
Brushes paper with random strokes: • circular strokes											
• vertical and horizontal strokes											
Covers at least half of the paper with paint: • paints one space											
• identifies unpainted space											
• paints in unpainted spaces											
Controls amount of paint used: • dips brush carefully											
• wipes excess from brush											
Selects three colours for picture: • uses different brush for each colour											
• washes brush when changing colours											
Paints using controlled strokes: • holds brush correctly											
• demonstrates correct brush techniques											
• reproduces given lines											
• reproduces given shapes											
Paints without mixing colours: • paints area as directed											
• finds new area for each colour											

Task Analysis Sample 7 (cont'd)

Date											
Completes tempera painting											
Completes water colour painting											
Experiments with at least two different painting techniques											

correct response +
incorrect response –

See footnote reference #4 on page ESS.252.

Task Analysis Sample 8
Record of Student Performance

STUDENT'S NAME _____

TASK Removing outer clothing

Date											
Places boots on paper											
Enters classroom											
Walks to coat hooks											
Locates own hook											
Hangs bag up											
Removes mittens											
Places mittens in pocket											
Removes scarf											
Hangs on hook											
Unzippers jacket											
Hangs on hook											
Removes ski pants											
Hangs on hook											

correct response +
incorrect response –

See footnote reference #4 on page ESS.252.

Task Analysis Sample 9
Record of Student Performance

STUDENT'S NAME: _____

TASK Participating in morning circle

Date											
Attendance functions: • sits on rug in semicircle											
• waits quietly for teacher to come											
• orientates to teacher											
• listens for name to be called											
• responds "here" when name called											
• sits "ready," hands on lap, legs crossed											
• listens to teacher identify helper											
• if helper, takes message to office											
Show'n'tell functions: • puts hand up to indicate participation											
• puts hand down, waits for teacher to call											
• removes show'n'tell from bag											
• stands up											
• tells three things about it											
• passes to other students											
• sits down											
• puts in bag											
• listens/watches other students											
• passes to next student											
Directions for morning functions: • remains seated quietly											
• listens to teacher instructions											
• remembers routine of morning											
• stands up when teacher is finished											
• carries show'n'tell to shoe cubby hole											
• puts in cubby hole											
• goes to location as directed in previous instructions											

correct response +
incorrect response –

See footnote reference #4 on page ESS.252.

Task Analysis Sample 10
Record of Student Performance

STUDENT'S NAME: _____

TASK Using centres

Date											
Directions: • sits on carpet											
• attends to teacher directions											
• listens to description of rules for that centre											
• remembers required centres											
• remembers to use different centres											
Approaching centre: • stands up from rug											
• determines where centres are located											
• approaches preferred centre											
• determines if appropriate number of people, counts or matches to number of sticks at centre entrance											
• if appropriate, enters centre											
• if not, selects new centre											
• if requested, goes to designated centre											
• must pass through all centres; must remember previous centres											
Participating in centre: • assumes appropriate position: table, chairs, floor or stands											
• interacts with materials appropriately											
• shares materials with peers											
• exchanges social interaction with peers											
• remembers directions for centre given on rug											
• completes any required activities for centre											
Clean up of centres: • lights out — cease action											

Task Analysis Sample 10 (cont'd)

Date											
• listens to verbal clue "It's time to clean up"											
• picks up materials in centre											
• restores centre to original state											
• helps clean up other centres if requested											
• shares work with peers											
• follows direction of peers											

correct response +
incorrect response –

See footnote reference #4 on page ESS.252

Task Analysis Sample 11
Record of Student Performance

STUDENT'S NAME: _____

TASK Using the gymnasium

Date											
Entering: • approaches classroom door to line up											
• stands at end of line											
• waits in line											
• walks down hall in line											
• turns at main entrance											
• walks down steps											
• pushes open door											
• walks into gym											
Gymnastic activities: • approaches teacher on command											
• sits down when requested											
• listens to directions											
• stands up											
• follows group											
• follows specific game/activity directions											
• ceases action when requested											
• listens for new directions											
• follows new directions											
Leaving: • lines up at door											
• pushes door open											
• follows line											
• walks up stairs											
• goes to bathroom											
• gets drink											
• lines up against wall by office											
• waits for others to return											
• follows line to room											

correct response +
incorrect response –

See footnote reference #4 on page ESS.252.

Task Analysis Sample 12
Record of Student Performance

STUDENT'S NAME: _____

TASK Using the bathroom

Date											
Requests/goes on command											
Locates bathroom											
Turns door knob											
Opens door											
Enters bathroom											
Closes door											
Pulls pants down											
Sits on toilet											
Voids											
Wipes self											
Gets off toilet											
Pulls pants up											
Flushes toilet											
Walks to sink											
Turns on water											
Washes hands											
Turns off water											
Dries hands											
Opens door											
Returns to previous location											

correct response +
incorrect response –

See footnote reference #4 on page ESS.252.

Task Analysis Sample 13
Record of Student Performance

STUDENT'S NAME: _____

TASK Taking message to office

Date											
Stands up when requested											
Takes message from teacher											
Walks to office											
Approaches adult in office											
Hands message to adult											
Waits for reply											
Walks back to room											
Gives reply/if one to teacher											
Rejoins group											

correct response +
incorrect response –

See footnote reference #4 on page ESS.252.

Task Analysis Sample 14
Record of Student Performance

STUDENT'S NAME: _____

TASK Cooking

Date											
Going to kitchen: • lines up at door if name called											
• follows line down hall											
• carries materials if requested											
• enters kitchen											
• locates chair											
• sits down											
Cooking: • listens to directions given											
• looks at picture directions											
• completes task directions											
• puts any garbage in can											
• wipes table											
• takes turns											
• interacts with peers/parent											
Return from kitchen: • lines up at door when cued											
• follows line											
• carries materials if required											
• enters classroom											
• returns materials											
• returns to centres											

correct response +
incorrect response –

See footnote reference #4 on page ESS.252.

Assessing, Evaluating and Communicating Student Growth

Principles of Assessment, Evaluation and Communication

The principles associated with assessing, evaluating and communicating student growth are the same for all students. Assessment, evaluation and communication of student growth are based on the knowledge, skills and attitudes students are expected to learn and should be congruent with the following principles:

- student growth is assessed, evaluated and communicated for all expectations
- student growth is evaluated and communicated on an ongoing basis and the information is used to plan programming
- student growth is demonstrated through a variety of performances evaluated by the teacher
- student growth is enhanced when students participate in the assessment-evaluation-communication process
- student growth is enhanced when assessment, evaluation and communication are viewed positively by the student.

Assessing, evaluating and communicating student achievement and growth are essential parts of the teaching-learning process. Students with special needs, like all students, should be provided opportunities to demonstrate their learning in different ways. This section provides information about ecological and performance assessments, portfolios and the process of evaluation. The sections concludes with a framework to guide staff in their assessment and evaluation practices.

Ecological Assessments

The ecological approach to functional skill assessment means observing the environments where the student is expected to participate and determining which skills are required in that context. These assessments provide information about the learning a student demonstrates in relation to the routine of a particular action.

To complete an ecological assessment:

- specify areas in the environment that are to be used for teaching essential and supportive life skills
- identify the skills required to perform the activity
- compare the student's present abilities to those skills required to perform the activity. This process, known as discrepancy analysis, is used to determine which skills the student needs to acquire and to determine which adaptations to instruction or to the environment are needed.

A blank form for an ecological assessment is provided on page ESS.45. The two completed ecological assessments on pages

ESS.46–47 provide examples of ecological assessment of a routine in the school environment. In the example where the student goes to a school assembly, the student was not able to demonstrate age-appropriate behaviour. Therefore, the task was analyzed, discrepant behaviour determined and plans for needed instruction prepared.

Ecological Assessments [5]

Student/Date:	Domain:	Environment:	Sub-environment:
Inventory	Student Response	Discrepancy Analysis	What-to-do Options
Activity: Skills:			

+ = correct response
– = incorrect response

[5] From *Community-based curriculum: instructional strategies for students with severe handicaps* (p. 48), by M. A Falvey, 1989. Adapted and reprinted with permission. Paul H. Brookes, Baltimore, MD 21285–0624.

Ecological Assessments
Sample Completed Form

Student/Date: John Smith, June 15, 1994	Domain: personal and social development	Environment: school	Sub-environment: gymnasium
Inventory	Student Response	Discrepancy Analysis	What-to-do Options
Activity: Arriving at assembly, line up at door in response to verbal cue	+		
wait in line	–	no strategy for waiting	teach verbal cue with physical prompt
follow line down hall to main doors	–	cannot stay in line with group	pair with other student; teach verbal cue
walk down stairs	+		
enter gym	+		
follow line to designated location on floor	–	wanders from group	provide physical cue
sit cross legged on floor	+		
remain quiet	–	unable to stop vocalizing	teach physical cue
listen to speaker	–	difficulty attending for longer than two minutes	provide signal
respond as required	+		

+ = correct response
– = incorrect response

Ecological Assessments
Sample Completed Form

Student/Date: John Smith, June 20, 1994	Domain: leisure/recreation/arts	Environment: school	Sub-environment: playground
Inventory	Student Response	Discrepancy Analysis	What-to-do Options
Activity: playing four-square Skills: locate four-square area	+		
stand in line; move in line	–	doesn't understand how line moves	teach how line moves
when turn comes up, move into appropriate square	–	doesn't know which square to enter	teach where and when to enter
bounce ball to partner; receive ball from partner	–	can't catch bounced ball	teach skills for catching bounced ball
continue playing until ball missed or bounced outside square	+		
stand in line appropriately; move up in line	–	doesn't understand how line moves	teach how line moves

+ = correct response
– = incorrect response

Performance Assessment

Performance assessment refers to a variety of tasks and situations in which students are given opportunities to demonstrate their understanding and apply their knowledge and skills in a variety of contexts. These assessments often occur over time and result in a tangible product or an observable performance. They encourage self-evaluation, require judgement to score, provide degrees of proficiency based on criteria, and make public the scoring criteria.

Different assessment strategies provide different information and what is suitable for one purpose may not be suitable for another. The results of any single assessment provide a snapshot of a student's achievement. Assessment in a number of areas is needed to provide a full profile of student achievement.

A paper-and-pencil test does not provide the opportunity for students to demonstrate all their learning. What a student demonstrates on a paper-and-pencil test is not necessarily what the student could explain orally, or show by constructing a tangible item, or by role playing or drawing. Examples of student performance, collected over time and in different formats, provide a more comprehensive picture of what the student knows, values and can do. This information is invaluable for planning student learning and for communicating with students and parents.

Quality student assessment should:

- include analyzing, synthesizing and evaluating the information learned through performance tasks that are based on "real world" problems or situations
- provide problems that are open-ended and contain multiple solutions
- provide a variety of methods by which students demonstrate their learning
- help students integrate their learning
- provide opportunities for students to evaluate their own work and that of others
- help students assume responsibility for their own learning.

Among the practices associated with quality assessment are:

- making students aware of the performance criteria in advance
- showing students examples of quality work that can be used as a model for their own work
- providing students with multiple opportunities to improve the quality of their work before it becomes final
- establishing the student as the worker and teacher as the facilitator.

Observing students as they solve problems, model skills to others, think aloud during a sequence of activities, engage in peer tutoring or interact with peers in a variety of learning situations can provide insight into how learning occurs. The teacher finds out under what conditions success is most likely,

what individual students do when difficulty is encountered, how interaction with others affects their concentration and learning, and what is appropriate for the student to learn next. Observations may be informal or highly structured, incidental or scheduled over different periods of time in different aspects of schooling.

Incidental observations are often recorded as anecdotal notes and placed in the student's record. "Stickies" are useful for this task. Observation checklists can be used for assessing a variety of student behaviours.

Examples of Performance Assessment

Verbal Interaction

Talking with students is an effective way to find out more about their strengths, interests and needs. Interactions may range from an informal conversation with one student, to a mini-lesson with a small group of students, to a formal conference with parents to share information and develop an individualized program plan for a student. The teacher should focus attention on what students say and do during these interactions and document the conversation.

Student Products

Student work may be collected in a variety of ways. Work samples can be created and collected on audiotape, videotape, computer disk or photographs as well as on paper. When a student product is included as part of assessment, it is important that the student indicates whether the work is in draft form or is a completed product. Dating the sample and briefly noting the circumstances under which it was accomplished are important in providing a context for interpreting the evidence of student learning. Samples may be chosen by the student, teacher, parent or peers.

Student Self-evaluation

Opportunities for students to assess their own learning provide valuable training in self-monitoring. Students can take responsibility for their part in the learning process by:

- evaluating an assignment or project prior to teacher or peer evaluation
- writing their own progress report
- writing a summary-of-learning letter to the teacher or parents
- participating in a goal-setting conference
- participating in the development of an individualized program plan.

In assessing their own work, students should be able to:

- use the criteria in order to evaluate their own performance
- make effective use of feedback from others
- set objectives
- establish plans to meet their objectives.

As students improve in their proficiency at self-assessment, they become active learners not solely dependent on the teacher for feedback on their completed work. Sample student self-evaluation forms are provided on the following pages.

Student Self-evaluation Form

This evaluation form may be completed independently by students with proficiency in writing. Other students may require assistance.

Keeping Track

Name_____ Date_____

Today in_____

_____

_____

I learned more about

_____

_____

_____

I still have questions about

_____

_____

Here are my plans for answering these questions

_____

_____

Student Self-evaluation Form

Science

Name_____ Date_____

What things did you try in the science centre?

_____

Write three things about (topic) that you learned

_____

_____

What did you learn about how scientists find out about things?

_____

_____

What books have you read about (topic) this year?

_____

_____

What would you like to learn about (topic) next?

_____

_____

Performance Tasks

Tasks that are specifically designed to have students demonstrate particular knowledge, skills and attitudes can be developed by the classroom teacher or other educators. These assessments may involve prompting specific student behaviours such as:

- giving an oral presentation
- having a conversation using a language other than English
- playing a musical instrument
- participating in a group discussion
- demonstrating a gymnastics routine
- conducting an investigation.

These assessments may involve creating a tangible product or may focus solely on observing a student's performance.

Portfolios

A portfolio is a purposeful collection of student products that exhibits the student's demonstrations of achievement, growth and performance. Portfolios:

- integrate assessment and instruction; helping students take control of their own learning
- capture a richer array of what students know and can do
- look at processes as well as final products
- provide realistic tasks and contexts for tasks so that assessment and instruction are "authentic"
- provide continuous and on-going information to students and other decision makers
- communicate what is valued.

Portfolios are usually managed by students. The teacher and students establish criteria for selecting material to be placed in the portfolio.

Portfolios offer students:

- a greater awareness of themselves as learners
- multiple opportunities to show their knowledge and skills
- active involvement in setting objectives, evaluating growth and planning
- a record of changes over time
- a level of achievement and an index of growth each year
- a collection of products to support the story of their growth (processes used as well as end products)
- concrete evidence to show others involved in their schooling what they know and can do
- source material for answering the question "What did you learn (do) in 12 years of schooling?"
- information for goal setting
- evidence of hard-to-score attributes such as perseverance, flexibility, thoughtfulness, self-confidence and a broad range of outcomes.

Portfolios offer teachers:

- a device for highlighting what an individual "can" do in relation to curriculum objectives
- a profile of a student's growth history (their story told with a variety of products, judgements made on that work, reasons for its selection to the portfolio, students' comments on work, students' reflections and data showing progress towards objectives)
- models of achievement of outcomes

- examples of work in classroom contexts
- a means for integrating with data from multiple sources
- methods for understanding criteria and interpreting standards for their unique situations
- material for communicating student learning and for making decisions about programming.

Examples of information to be included in a student's portfolio:

- monthly samples of student printing/writing
- samples of art work, two from each unit
- learning logs from science activity
- samples of mathematics skill practices and problem-solving activities.

Evaluation Process

Judgements about student achievement and growth follow assessment. Suggested steps to follow in the evaluation process are:

- focus on an outcome and specify what students are expected to know and do
- select the student product or behaviour to be analyzed
- list evidence of the outcome observable in the product or behaviour
- compare evidence to the expected achievement criteria
- consider planning implications (next steps for programming and grouping, applications to other courses and co-curricular activities)
- consider communication implications: what information to record and communicate, how to record and communicate information, and to whom and how to convey information.

These judgements not only indicate student growth, but also form the basis for setting objectives. Evaluation is an ongoing process that provides for continual review of student growth.

Framework for Assessment and Evaluation Practices

The following questions can be used as a framework to guide assessment and evaluation of students.

- What types of evidence do you have today, on any given student, regarding how they have met (or are meeting) the course objectives?
- How much variety is there in your assessment and evaluation practices?
- To what extent do your assessment and evaluation practices vary the level of thinking skills involved; i.e., recall, process, application?
- How do you build student choice into your assessment and evaluation?
- How do you involve students in their assessments and evaluations?
- How do you involve students in the assessment and evaluation of their peers?
- What forms of assessment do you want to utilize next year?

Section II
Foundation Skills

Foundation skills are skills that form the basis for future learning. These skills support the learner expectations in the programs of study.

The checklists in Sections II, III and IV provide possible assessment items for instructional program planning. The skills in many of the checklists are provided in developmental sequence. However, it is important to remember that not all students develop skills in the same sequence and that some students may demonstrate higher-level skills without establishing competence in lower-level skills.

The checklists Gross Motor Development (page ESS.73) and Fine Motor Control (page ESS.79) are appropriate for students who:

- appear to be developing normally
- have mild general development delays
- show clumsy movements or awkward gait.

These checklists should not be used with students who have medically diagnosed physical disorders such as cerebral palsy, muscular dystrophy or spina bifida. These students tend not to follow the usual sequence of development. They may exhibit abnormal movements and postures. In these instances it is recommended that a physiotherapist or an occupational therapist familiar with pediatric development be consulted.

A number of resources have been annotated to complement the checklists (page ESS.239). It is important that teachers consult a wide range of resources in determining instructional programs for students with developmental disabilities. The Alberta Education programs of study and curriculum support materials should be the starting point for all program planning.

Communication

Language — Receptive	NAME _____ DATE _____		
The student will develop receptive language skills.			
The student will:	has mastered	still learning	needs to learn
show awareness of a speaker			
discriminate between angry and friendly voices			
look in response to own name			
comprehend "no"			
look at some objects when names are spoken			
smile and reach for self in mirror			
respond to sounds when the source is not visible			
attend to music or singing			
anticipate steps within daily routine			
understand simple questions and instructions; e.g., "Where are your shoes?"; "Give me that."			
understand more words than he or she can say			
understand early concepts; e.g., in/on/under			
understand object function; e.g., "Which one do we eat with?"			
follow two related directions; e.g., "Close the book and give it to me."			
understand questions about a story with pictures			
follow three related directions			

Communication (cont'd)

Language — Expressive	NAME _____ DATE _____		
The student will develop expressive language skills.			
The student will:	has mastered	still learning	needs to learn
cry to get attention			
vocalize to express pleasure and displeasure			
stop vocalizing when another person vocalizes			
call for attention			
use a wide variety of sound combinations			
use sentence-like intonational patterns			
imitate sounds and names for familiar objects			
nod for "yes"; shake head for "no"			
combine vocalization and gesture to obtain desired objects			
talk more than gesture			
use names for most familiar objects			
use two-word phrases			
relate personal experiences			
use three-word phrases			
use some pronouns; e.g., he, me, you			
answer who, what, where questions			
use two sentence types; i.e., statements and simple questions			
use negation (no, not)			
use plurals			
use prepositions (in, on, under)			

Communication (cont'd)

Language — Expressive	NAME _____ DATE _____		
The student will develop expressive language skills.			
The student will:	has mastered	still learning	needs to learn
converse in simple, intelligible sentences (although grammatical errors may still be present)			
use verb forms (present progressive – jump*ing*; past tense regular – jump*ed*; past tense irregular – broke) with some errors			
describe objects and events			
use helping verb forms; e.g., *is* jumping, *was* not			
use complex sentence and more advanced question forms; e.g., "Are we going swimming today?, which are generally grammatically correct			
tell a sequenced story			

Communication (cont'd)

Social Communication	NAME _____ DATE _____		
The student will communicate with others.			
The student will:	has mastered	still learning	needs to learn
request objects or activities with signs or words			
greet familiar people with words or signs			
ask a simple question			
ask yes/no questions with appropriate inflection			
comment on appearance or disappearance of objects or people			
request assistance			
request permission			
sustain conversation for several turns			
talk on telephone; wait turn to respond			
describe what is happening or what he or she is doing			
complete incomplete sentence begun by an adult in a teaching context			
describe functions of objects			
name three or more elements in a picture or describe what is happening in a picture			
respond correctly to "what do you do" and "why do we" questions			
tell a story by looking at pictures			
answer "what is, whose, who," and "how many" questions appropriately			

Communication (cont'd)

Social Communication	NAME _____ DATE _____		
The student will communicate with others.			
The student will:	has mastered	still learning	needs to learn
communicate cause-and-effect relationships			
use contingent questions to maintain a conversation (Why did he do that? Then what happened?)			
create interest in a listener by indirect reference (I have a new toy.)			
communicate knowledge about the world to peers and adults			
tell two familiar stories without pictures for help			

Communication (cont'd)

Language — Articulation	NAME _____ DATE _____		
The student will demonstrate production of the following sounds in connected speech.			
	has mastered	still learning	needs to learn
p			
w			
m			
b			
h			
t			
d			
k			
g			
n			
ng			
y			
f			
v			
l			
l-blends			
sh			
ch			
j			
s-z			
s-blends			

Communication (cont'd)

Language — Articulation	NAME _____ DATE _____		
The student will demonstrate production of the following sounds in connected speech.			
	has mastered	still learning	needs to learn
r			
r-blends			
th - voiceless			
th - voiced			

Communication (cont'd)

Language — Expressive (Nonverbal)	NAME _____ DATE _____		
The student will use an alternative communication system.			
The student will:	has mastered	still learning	needs to learn
discriminate between two pictures			
associate one or two signs/pictures/symbols with their meaning			
discriminate between two signs/pictures/symbols learned			
use signs/pictures/symbols necessary in daily routines			
use two-word communication — signs/pictures/symbols			
use three-word communication — signs/pictures/symbols			
use new signs/pictures/symbols for new routines			
initiate interaction with others			

Communication (cont'd)

Language	NAME _____ DATE _____		
Vocabulary — General Knowledge and Use			
The student will:	has mastered	still learning	needs to learn
know family members' names			
know names for familiar objects			
understand some action words and prepositions			
say eight to 10 words spontaneously			
understand 50 words			
say 15 meaningful words and name five to seven objects on request			
use 50 different words			
use early developing modifiers; e.g., big, pretty			
understand new words rapidly			
use a variety of words including nouns (foods, body parts, furniture, household objects, important people); action words (sleep, wash, clap); modifers (hot, clean); location words (up, here); social words (bye, hello) and emotion words (sad, mad)			
use 100 different words			
have a good functional vocabulary (knowledge of words important in various student environments)			
identify objects by category			
use and understand words related to classroom themes and activities (including daily living)			
ask the meaning of unfamiliar words			

Communication (cont'd)

Language				NAME _____ DATE _____		
Vocabulary						
Body Parts	**Receptive (Show me . . .)**			**Expressive (Labelling)**		
The student will demonstrate receptive and expressive knowledge of:	has mastered	still learning	needs to learn	has mastered	still learning	needs to learn
mouth						
eye						
nose						
ears						
feet						
hair						
tongue						
teeth						
hands						
head						
legs						
arms						
fingers						
fingernails						
thumbs						
toes						
neck						
stomach						

Communication (cont'd)

Language				NAME _____ DATE _____		
Vocabulary						
Body Parts	**Receptive (Show me . . .)**			**Expressive (Labelling)**		
The student will demonstrate receptive and expressive knowledge of:	has mastered	still learning	needs to learn	has mastered	still learning	needs to learn
chest						
back						
knee						
chin						
heels						
elbows						
shoulders						
ankles						
jaw						
hips						
wrists						
waist						

NOTES: Students typically display receptive language abilities that are better developed than their expressive abilities. Therefore, a student will likely first demonstrate an understanding of basic concepts before using them correctly in expressive speech. Both an understanding and production (expression) of concepts is important.

Concepts from different checklists may be taught at the same time and will need ongoing review.

Communication (cont'd)

Language				NAME _____ DATE _____		
Vocabulary						
Colours	**Receptive**			**Expressive**		
The student will demonstrate a receptive and expressive knowledge of:	has mastered	still learning	needs to learn	has mastered	still learning	needs to learn
red						
blue						
yellow						
green						
orange						
purple						
black						
brown						
pink						

Communication (cont'd)

Language				NAME _____ DATE _____		
Vocabulary						
Weather	**Receptive**			**Expressive**		
The student will demonstrate a receptive and expressive knowledge of:	has mastered	still learning	needs to learn	has mastered	still learning	needs to learn
rain/rainy						
hot/sunny						
cloudy						
cold						
windy						

Communication (cont'd)

Language				NAME _____ DATE _____		
Vocabulary						
Social/ Emotional	**Receptive**			**Expressive**		
The student will demonstrate receptive and expressive knowledge of:	has mastered	still learning	needs to learn	has mastered	still learning	needs to learn
boy/girl						
man/woman						
father/mother						
happy/angry/sad						
sick						
afraid (scared)						
excited						
tired						
brothers/sisters						
friendly						
wrong/right						
relaxed						
disappointed						
healthy						
old/young						
easy/hard (difficult)						

NOTE: Members of opposite concept pairs will not necessarily be learned at the same time; e.g., high typically develops before low, however they have been listed in pairs when possible for ease of reading and because using contrast when teaching concepts can be helpful. All basic concepts listed generally following the typical developmental sequence.

Communication (cont'd)

Language				NAME _____ DATE _____		
Vocabulary						
Directional/ Positional Concepts	**Receptive (Put the ball __ the book)**			**Expressive (Where is it?)**		
The student will demonstrate receptive and expressive knowledge of:	has mastered	still learning	needs to learn	has mastered	still learning	needs to learn
up/down						
closed/open						
out/in						
off/on						
inside/outside						
under						
next to/beside						
high/low						
into/out of						
back/side/front						
close to						
middle						
through						
beside						
near/far						
top/bottom						
moving/standing still						
between						
end						

Communication (cont'd)

Language				NAME _____ DATE _____		
Vocabulary						
Directional/ Positional Concepts	**Receptive (Put the ball __ the book)**			**Expressive (Where is it?)**		
The student will demonstrate receptive and expressive knowledge of:	has mastered	still learning	needs to learn	has mastered	still learning	needs to learn
edge						
over						
toward/away from						
centre						
above/below						
right/left						

Communication (cont'd)

Language				NAME _____ DATE _____		
Vocabulary						
Comparisons	**Receptive**			**Expressive**		
The student will demonstrate a receptive and expressive knowledge of:	has mastered	still learning	needs to learn	has mastered	still learning	needs to learn
same/different/ not the same						
alike (equal, identical)						
other than						

Communication (cont'd)

Language				NAME _____ DATE _____		
Vocabulary						
Size Concepts	**Receptive**			**Expressive**		
The student will demonstrate receptive and expressive knowledge of:	has mastered	still learning	needs to learn	has mastered	still learning	needs to learn
big/little (small)						
tall/short						
heavy/light						
short/long						
deep/shallow						
thin/fat						
large						
wide						
thick						
medium-sized						

Communication (cont'd)

Language				NAME _____ DATE _____		
Vocabulary						
Texture and Material	**Receptive**			**Expressive**		
The student will demonstrate receptive and expressive knowledge of:	has mastered	still learning	needs to learn	has mastered	still learning	needs to learn
hot/cold						
loud/quiet						
hard/soft						
shiny						
wood/glass/ metal						
dark/light; i.e., colour						
sharp/dull						
smooth/rough						

Communication (cont'd)

Language				NAME _____ DATE _____		
Vocabulary						
Time and Sequence Concepts	**Receptive**			**Expressive**		
The student will demonstrate receptive and expressive knowledge of:	has mastered	still learning	needs to learn	has mastered	still learning	needs to learn
daytime/night						
fast/slow						
finished/starting						
old/new						
seasons						
morning						
leaving/arriving (coming)						
before/after						

Gross Motor Development

Gross Motor Development	NAME _____ DATE _____		
The student will:	has mastered	still learning	needs to learn
lift head momentarily (one to three seconds) when lying on stomach (prone)			
roll part way on side from back (supine)			
hold head erect for two to three seconds, when held in sitting position			
raise head and chest to 90 degrees with forearm support, when prone			
hold head steady and erect, when held in sitting position			
roll on side from supine			
lift head and chest and take weight on hands, with elbows straight, when prone			
hold head up in line with body, when pulled up to sit			
roll from front to back and vice versa			
maintain the position by propping on extended arms, when placed in sitting position			
bear weight in supported standing position			
use extremities to alter direction or pivot, when prone			
creep forward on stomach			
maintain a sitting position on floor independently, briefly freeing arms			
push up onto hands and knees and rock			
achieve a prone position, or a position on hands and knees, from sitting position			

Gross Motor Development (cont'd)

Gross Motor Development	NAME _____ DATE _____		
The student will:	has mastered	still learning	needs to learn
hold railing and maintain position, when placed in standing position			
crawl on hands and knees			
pull to standing			
fall by collapse			
assume sitting position independently from supine			
stand alone briefly (five seconds)			
lift foot, when standing at railing			
scoot around while sitting			
walk sideways, holding on, when standing at a rail or by furniture			
walk, with one or both hands held			
lower to sitting from standing			
walk independently for a few steps			
assume and maintain kneeling position			
crawl up stairs or climb on low furniture			
walk well (start, stop, turn)			
stand without help and maintain position			
squat to pick up object and reerect, sometimes falling			
ride a push toy			
climb onto chair, turn and sit			
run stiffly (hurried walk)			

Gross Motor Development (cont'd)

Gross Motor Development	NAME _____ DATE _____		
The student will:	has mastered	still learning	needs to learn
walk up stairs, one hand held; crawl backwards down stairs			
pull toy behind while walking			
stand on one foot, with hands held			
walk up stairs holding rail; walk down with hand held			
roll ball while sitting			
kick playground ball, sometimes losing balance (move against ball)			
attempt to stand on balance beam, with one hand held			
throw ball, arm and body moving as unit without falling			
squat to play			
attempt jumping up with both feet			
hop with one hand held			
pedal tricycle — not around corners			
bounce playground ball and attempt to catch it			
stand sideways on balance beam; walk on beam with one foot on and one foot off			
bend at waist to pick up objects			
walk backwards three steps; walk on tiptoes three steps			
walk up or down stairs alone, holding rail, without alternating feet			

Gross Motor Development (cont'd)

Gross Motor Development	NAME _____ DATE _____		
The student will:	has mastered	still learning	needs to learn
jump from bottom step (feet together)			
walk with a heel-toe pattern			
kick a large ball with control (leg straight and some body movement)			
stand on either foot momentarily			
climb jungle gyms and ladders			
jump forward two to eight times in a row with both feet; jump down from height of 30 cm			
ride tricycle around corners			
catch large ball with arms and body; bounce and catch playground ball two or more times with both hands; throw ball with body rotation			
hop twice on preferred foot			
attempt walking on balance beam with no support and arms out to side			
walk on tiptoes for 10 steps; walk backwards easily			
walk straight line on balance beam			
run around obstacles smoothly; run on tiptoes; gallop			
walk up or down stairs, holding rail, with alternating feet			
balance on one foot, four to eight seconds			
catch large ball with arms bent at elbow			
go up or down stairs, no rail, alternating feet			

Gross Motor Development (cont'd)

Gross Motor Development	NAME _____ DATE _____		
The student will:	has mastered	still learning	needs to learn
perform a standing broad jump (40 to 50 cm); hop on same foot for four to six times			
walk balance beam with hands at sides, using a heel-toe pattern			
somersault forward			
throw tennis ball stepping forward with leg on same side as throwing arm			
skip with alternating pattern; hippity-hop			
balance on one foot, eyes closed, seven to eight seconds			
run well; turn, stop and start and change speed			
hop on same foot eight to 10 times			
catch bounced ball with both hands; bounce and catch balls			
ride small two-wheeled bike with training wheels			
march in time to music			
use skates, skis or roller skates in forward direction			
walk backwards on beam, toe to heel			
catch bean bag with one hand; throw with accuracy			
ride bicycle			
dribble ball with direction			

Gross Motor Development (cont'd)

Gross Motor Development	NAME _____ DATE _____		
The student will:	has mastered	still learning	needs to learn
kick rolling ball with mature pattern; hit ball with bat or stick			
hang 10 seconds from horizontal bar, bearing weight on arms			
run with increasing speed (32 metres in 10 seconds)			
throw with mature pattern			
coordinate eye, hand and foot movements into complex motor activities (skip rope independently, run while dribbling ball)			

Fine Motor Control

Fine Motor Control	NAME _____ DATE _____		
The student will manipulate objects.			
The student will:	has mastered	still learning	needs to learn
grasp objects with either hand			
shake, bang, pat-a-cake objects			
transfer an object from hand to hand			
voluntarily drop, throw, push, pull objects			
pick up small objects with thumb and fingers (crude pincer*)			
use refined pincer grasp to pick up small objects			
place small object(s) in cup			
place one shape in a formboard			
place rings on a stacking post (random order)			
stack three blocks (2.5 – 4 cm)			
place four graduated nesting cups inside each other			
accurately drop pennies through a horizontal slot			
string large (2.5 cm) beads onto a lace			
roll, squeeze, pound or pinch play dough			
turn paper pages in a book, one page at a time			

* A crude pincer uses pads of the thumb and index or middle fingers to pick up, hold and release items. A refined pincer grasp incorporates the finger tips rather than pads of the fingers.

Fine Motor Control (cont'd)

Fine Motor Control	NAME _____ DATE _____		
The student will manipulate objects.			
The student will:	has mastered	still learning	needs to learn
accurately release small objects (pellets) from pincer grasp into a bottle			
screw and unscrew items			
turn doorknobs, handles			
stack 10 small blocks (2.5 cm)			
unbutton large button on shirt/blouse front			
put on own shoes			
randomly place small diameter pegs into pegboard (height of pegs may vary — short pegs more difficult)			
button and unbutton large and medium-size buttons on own clothing			
make clay shapes put together with two to three parts			
put zipper foot in latch			
buckle and unbuckle own belt			
spread fingers, touching thumb to each finger			
use pencil sharpener (hand held or manual type mounted on wall or shelf)			

(Note the hand used/preferred on appropriate items.)

Fine Motor Control (cont'd)

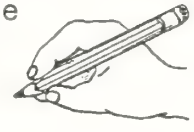
Fine Motor Control	NAME _____ DATE _____		
The student will colour.			
The student will:	has mastered	still learning	needs to learn
scribble on paper			
explore a variety of media (crayons, markers, chalk, paint)			
colour over a picture using random strokes, strokes may extend beyond the boundaries of the picture			
attend to specific areas and boundaries of a picture when colouring			
use different colours when colouring different areas of a picture			
generally remain within lines (within 1 cm) in a simple picture)			
keep paper still with one hand while controlling marker/crayon with the other hand			
generally remain within lines (within 5 mm) in a picture that has smaller areas and more detail			
choose "appropriate" or conventional colours for the picture			
adjust stroke to fit within areas using single directional strokes			
precisely adjust the stroke length and direction for specialized effects such as shading and contour (illusion of three dimensions)			

Fine Motor Control (cont'd)

Fine Motor Control	NAME _____ DATE _____		
The student will develop graphic skills.			
The student will:	has mastered	still learning	needs to learn
use crude-fisted grasp with wrist flexed to scribble randomly using large wide-ranging whole-arm movements			
scribble with identifiable repetitious strokes demonstrating a predominant stroke direction			
hold pencil in extended fingers with straight wrist, movements controlled from the forearm			
imitate* vertical stroke			
imitate horizontal stroke			
imitate circular stroke			
imitate cross formed of horizontal and vertical lines: +			
copy* circle			
hold pencil with the ends of the thumb, index and middle fingers, lines made by movements of the wrist and whole hand			
trace* diamond shape rounding the corners			

* definitions: *imitates* refers to the ability to execute a drawing after it has been demonstrated to the child
copies indicates the ability to reproduce a drawing from an example
traces the drawing is made on top of the provided sample

Fine Motor Control (cont'd)

Fine Motor Control	NAME _____ DATE _____		
The student will develop graphic skills.			
The student will:	has mastered	still learning	needs to learn
copy cross: +			
copy right and left diagonal lines: / and \			
copy square			
hold pencil with mature three-point grasp supported by the tips of the thumb, index and middle fingers; with pencil manipulated by fine localized movements of these fingers 			
copy oblique cross: X (right and left diagonal lines)			
copy triangle			
copy diamond			

Fine Motor Control (cont'd)

Fine Motor Control	NAME _____ DATE _____		
The student will develop manuscript printing.			
The student will:	has mastered	still learning	needs to learn
"draw" first name (often all upper case) without understanding sound-symbol association or knowledge of whole alphabet			
execute vertical strokes using top to bottom direction			
form circular strokes in counterclockwise direction if right handed, clockwise if left handed			
execute diagonals resulting in accurate angles using top to bottom stroke			
trace letters made of straight lines: F, H, I, L, T, i, l, t			
trace letters formed with curved lines, circles and half circles: C, G, O, c, g, o			
trace letters with straight lines and curves: B, D, J, P, R, S, U, b, d, g, h, j, m, n, p, r, s, u			
trace letters made of straight lines and diagonals: A, K, M, W, X, Y, Z, k, w, x, y, z			
imitate letters made of straight lines			
imitate letters formed with curved lines, circles and half circles			
imitate letters made of straight lines and diagonals			
imitate letters made of straight lines and curves			
copy letters from a sample			

Fine Motor Control (cont'd)

Fine Motor Control	NAME _____ DATE _____		
The student will develop manuscript printing.			
The student will:	has mastered	still learning	needs to learn
form letters legibly from memory			
demonstrate ability to print uppercase letter with corresponding lowercase partner from memory			
uniformly space letters within single words and then sentences			
transcribe (copy) words — letter by letter from sample			
transcribe simple sentences with attention to details of letter order, spacing between words and placement on the line			
transcribe several sentences accurately with attention to capitalization and punctuation			

Fine Motor Control (cont'd)

Fine Motor Control	NAME _____ DATE _____		
The student will cut with scissors.			
The student will:	has mastered	still learning	needs to learn
hold scissors in two hands and open and close them on paper			
hold scissors appropriately* and control blade opening and closing			
snip narrow strips of stiff paper randomly			
cut forward across a 5 cm wide strip of stiff paper using consecutive cuts (jagged edges result)			
cut 5 cm forward on a wide (6 mm) line			
cut 15 cm forward on a wide (6 mm) line			
cut out simple straight-sided geometric shapes: squares, rectangles, triangles and diamonds within a 6 mm tolerance of the line			
cut 5 cm forward on a narrow (3 mm) line			
cut 15 cm forward on a narrow (3 mm) line			
cut out simple straight-sided geometric shapes within 3 mm tolerance of the line and without cutting off corners			
cut out gentle arc using short separate snips (wide 6 mm line)			

* **Mature scissor grasp:** The scissor is held perpendicular to the floor, thumb through top loop, middle/or middle and ring finger through the bottom loop and index finger remains outside of loop resting at base of lower loop to steady the scissor and control lateral orientation.

Fine Motor Control (cont'd)

Fine Motor Control	NAME _____ DATE _____		
The student will cut with scissors.			
The student will:	has mastered	still learning	needs to learn
cut out semicircle adjusting paper position simultaneously during controlled scissor blade closure (narrow 3 mm line)			
cut out full circle with dynamic interaction between two hands (narrow 3 mm line)			
cut out irregular shape consisting primarily of sections of straight lines			
cut out complex figures consisting of combinations of curves, straight lines, angles and sharp changes in direction			

NOTE: Ensure that appropriate handedness and size of scissor is supplied to student.

Section III
Subject Area Learnings

The checklists for mathematics, reading and writing reflect the current Alberta Education programs of study. The programs of study include more extensive information about each of these subject areas and this information should be considered when planning student programming. Although the charts present expectations in isolation, it is important to remember that demonstrations of learning usually include the application of many skills in a particular context.

The skills in each of the areas are organized by grade to indicate the year of schooling in which they are learned by most students. For example, Grade 1 skills are those skills that most students learn in their first year of school. Other students may learn these skills earlier or later.

Cognitive Development

Cognitive Development	NAME _____ DATE _____		
The student will:	has mastered	still learning	needs to learn
show an interest in the environment (look at and listen to new stimuli)			
follow an object's movement			
repeat an action that has an interesting effect			
look for something that has been hidden			
imitate simple actions			
use an object as a tool to obtain desires			
point to pictures in a book upon request			
imitate sounds or body movements after a short period of time			
sort objects into two categories			
recognize and name simple shapes			
complete a simple pattern			
complete a two-piece puzzle — straight cut diagonally			
place three pictures in a sequence to tell a story			
match simple drawings of shapes/letters/numerals			
sing a nursery song			
display a visual memory of four items			
demonstrate a verbal memory of four items			
draw a person with at least seven distinct body parts			

Cognitive Development (cont'd)

Cognitive Development	NAME _____ DATE _____		
The student will:	has mastered	still learning	needs to learn
complete 12-piece puzzle			
categorize according to function			
put graduated sizes in order			
recognize and name five capital letters			
attend to task for 15 minutes			
identify first, middle, last name			
rhyme words			
copy own name in large irregular letters			

Mathematics

Mathematics	NAME _____ DATE _____		
The student will develop Pre-grade 1 skills in mathematics.			
The student will:	has mastered	still learning	needs to learn
begin to demonstrate the traits of a successful problem solver in the environment as well as when using pictures or graphs			
be able to identify, reproduce, create and extend patterns using two (or more) actions with objects			
sort objects by attributes			
match members of two sets of manipulatives, and describe the relationship between the two sets using the terms more than, greater than, fewer than, less than, the same as/equal (no written symbols)			
rote count to nine			
recognize numerals to nine			
match numerals to a set			
add and subtract through role playing and the use of manipulatives (no use of written symbols)			
use the following terms for measurement of length: big/small, long/short			
use the following terms for measurement of capacity: empty/full			
use the following terms for measurement of weight: heavy/light			
use the following terms for measurement of temperature: hot/cold			

Mathematics (cont'd)

Mathematics	NAME _____ DATE _____		
The student will develop Pre-grade 1 skills in mathematics.			
The student will:	has mastered	still learning	needs to learn
have an awareness of the terms used for time: now, before, long time/short time, yesterday, today, tomorrow			
show awareness that purchasing involves an exchange of money or tokens for goods or services			
use non-standard units to compare two objects			
recognize spatial relationships; i.e., up/down, on/off, over/under, etc.			
with guidance, collect, display and interpret data in solving problems from daily life; e.g., shoes with velcro, shoes with laces			

Mathematics (cont'd)

Mathematics	NAME _____ DATE _____		
The student will demonstrate Pre-grade 1 understanding of shapes.			
The student will:	has mastered	still learning	needs to learn
classify three-dimensional objects using the terms: balls, boxes, cans, cones			
match circle			
match square			
match triangle			
match rectangle			

Mathematics (cont'd)

Mathematics	NAME _____ DATE _____		
The student will develop Grade 1 skills in mathematics.			
The student will:	has mastered	still learning	needs to learn
match numbers of two sets; determine equivalent and non-equivalent sets			
use fewer than, greater than, more than, less than, equal to, to describe numbers (no symbols)			
associate a number with equivalent sets			
order numbers to 10			
read and write numerals to 100			
identify the number of 10s and the number of 1s in any two-digit number			
understand processes of addition and subtraction			
symbolize addition and subtraction situations			
demonstrate mastery of basic facts involving subtraction and addition through nine			
tell time to the hour			
recite and order the days of the week			
use shorter, longer, thicker, heavier and lighter than when comparing two or more objects			
estimate and measure using non-standard units of length, capacity, mass			
identify instruments for measuring length, capacity, mass, time and temperature			
recognize pennies, nickels, dimes and quarters, and state values of each			

Mathematics (cont'd)

Mathematics	NAME _____ DATE _____		
The student will develop Grade 1 skills in mathematics.			
The student will:	has mastered	still learning	needs to learn
classify three-dimensional objects			
recognize and name circle, square, triangle, rectangle			
collect data from the immediate environment to construct graphs, using pictures or objects and discuss the results			

Mathematics (cont'd)

Mathematics	NAME _____ DATE _____		
The student will develop Grade 2 skills in mathematics.			
The student will:	has mastered	still learning	needs to learn
identify the cardinal number associated with a set of objects			
order numbers and recognize "betweeness" 0 – 100			
read and write numerals 0 – 999			
name and use ordinals first to tenth			
identify the number of 100s, 10s and 1s in a given three-digit numeral			
identify multiples by counting by 5s, 10s and 100s			
identify and write proper fractions in a concrete and pictorial setting			
symbolize addition and subtraction situations			
understand the basis of the commutative property for addition			
understand the processes of multiplication and addition			
demonstrate mastery of basic facts involving sums and minuend to 18			
add and subtract to 99 without regrouping			
tell time to hour, half hour and quarter hour			
write hour, half hour and quarter hour using standard notation			
read dates on the calendar			

Mathematics (cont'd)

Mathematics	NAME _____ DATE _____		
The student will develop Grade 2 skills in mathematics.			
The student will:	has mastered	still learning	needs to learn
recite months of the year in order			
read a Celsius thermometer to five degree intervals			
estimate and use standard units of length, capacity and mass with correct symbols: m, cm, L, kg			
identify appropriate measuring instruments for a given task			
count a collection of coins up to 25 cents			
give equivalent value of coins up to 25 cents			
make purchases up to 25 cents			
classify three-dimensional objects in relation to corners, edges and faces			
classify three-dimensional figures using three-dimensional objects and two-dimensional figures			
demonstrate symmetry through folding and cutting			
construct and interpret pictographs and simple bar graphs, using data collected from immediate environment			

Mathematics (cont'd)

Mathematics	NAME _____ DATE _____		
The student will develop Grade 3 skills in mathematics.			
The student will:	has mastered	still learning	needs to learn
order and determine "betweeness" of whole numbers (0 – 1000) and understands symbols >, < and =, to show relationships			
read and write numerals (0 – 9999)			
identify multiples by counting by 2s, 5s, 10s, 25s, 100s, (0 – 1000)			
identify the number of 1000s, 100s, 10s, and 1s in a number			
write numbers in expanded notation (0 – 1000) and vice versa			
identify, write and compare proper fractions from concrete and pictorial representation (halves, thirds, quarters, fifths, tenths)			
read and write decimals from concrete and pictorial situations (tenths only)			
identify addition, subtraction, multiplication and division situations			
add and subtract two- or three-digit numbers without regrouping			
symbolize multiplication and division situations			
understand the commutative property of addition and multiplication			
identify related sentences for addition, subtraction, multiplication and division			
understand the unique effect of zero and one in addition and multiplication			
demonstrate mastery of basic facts involving sums and minuends to 18, and products and dividends to 45			

Mathematics (cont'd)

Mathematics	NAME _____ DATE _____		
The student will develop Grade 3 skills in mathematics.			
The student will:	has mastered	still learning	needs to learn
multiply whole numbers by 10 and 100			
tell and write the time to the nearest hour, half hour, quarter hour and five-minute intervals			
order months of the year			
read the Celsius thermometer to one degree intervals and use the degree symbol			
count collections of coins up to $1			
make purchases and change up to $1			
extend estimation and measurement to include the use of standard units kilometre and decimetre with symbols km and dm			
use standard measuring instruments (metre stick, litre container, mass scales, calendar, Celsius thermometer)			
classify and identify three-dimensional objects and two-dimensional figures			
construct simple three-dimensional objects			
construct simple two-dimensional figures			
identify symmetric figures and draws lines of symmetry on two-dimensional figures			
identify the axes			
collect data and construct pictographs and simple bar graphs			
interpret pictographs and simple bar graphs			
locate position of an object on a grid			

Mathematics (cont'd)

Mathematics	NAME _____ DATE _____		
The student will develop Grade 4 skills in mathematics.			
The student will:	has mastered	still learning	needs to learn
round whole numbers to the nearest thousand			
write whole numbers in expanded notation and vice versa			
identify and name place value of digits (0.01 – 99 999)			
identify and write a fraction to represent a point on a number line, a part of a region or a part of a set (emphasis on halves, thirds, quarters, fifths and tenths)			
identify equivalent fractions			
read, write and order whole numbers and decimals (0.01 – 99 999)			
regroup tenths and hundredths			
add and subtract numbers using standard and expanded notation			
multiply whole numbers by one- and two-digit whole numbers; estimate products			
write related sentences for addition, subtraction, multiplication and division			
demonstrate mastery of basic factors for sums and minuends to 18 and products and dividends through 81			
divide one- and two-digit whole numbers by a one-digit divisor (with and without remainders); estimate quotients			
multiply whole numbers by 10, 100 and 1000			

Mathematics (cont'd)

Mathematics	NAME _____ DATE _____		
The student will develop Grade 4 skills in mathematics.			
The student will:	has mastered	still learning	needs to learn
add and subtract decimals to hundredths			
read and write time to minutes			
read Celsius thermometer and determine reasonableness of reading to given situations			
extend estimation and measurement to include the use of the standard units of millimetre, millilitre and gram with symbols mm, mL and g			
use appropriate standard measuring units for length, capacity and mass			
use money (coins and bills) for purchasing and making change			
express linear measure to nearest tenth and hundredth of a meter			
identify properties of three-dimensional objects and two-dimensional figures			
determine whether or not a two-dimensional figure is symmetric; draw axes of symmetry			
translate slides and reflect (flip) concrete objects			
construct pictographs and bar graphs			
interpret pictographs and bar graphs			
write coordinates as ordered pairs			
graph ordered pairs			

Mathematics (cont'd)

Mathematics	NAME _____ DATE _____		
The student will develop Grade 5 skills in mathematics.			
The student will:	has mastered	still learning	needs to learn
identify and name place value of digits (0.001 – 999 999)			
round whole numbers (limit to the nearest 10 000)			
round numbers to tenths and hundredths			
express and generate proportional ratios			
solve for the missing numeral in proportional ratios without using cross products			
express tenths, hundredths and thousandths as fractions and decimals			
generate equivalent fractions for halves, quarters, fifths, tenths and hundredths			
regroup tenths, hundredths and thousandths			
read, write and order whole numbers and decimals (0.001 – 999 999)			
add and subtract whole numbers; estimate sums and differences			
demonstrate mastery of basic facts			
multiply and divide whole numbers and decimals by 10, 100 and 1000			
add, subtract and multiple decimals (sums, differences and products to thousandths)			
divide decimals by one-digit whole numbers			
read and write time to seconds			

Mathematics (cont'd)

Mathematics	NAME _____ DATE _____		
The student will develop Grade 5 skills in mathematics.			
The student will:	has mastered	still learning	needs to learn
read a 24-hour clock			
extend estimations and measurements including tonne and its symbol t			
read distances according to a scale			
draw two-dimensional figures to scale using grid paper			
use appropriate standard measuring units for length, capacity and mass			
understand the system for metric prefixes of basic units, including the use of symbols kilo (k), hectare (h), dec (d), cent (c), mill (m)			
express linear measures in expanded form			
express equivalent linear measures			
find perimeter of polygons without using formula			
find area of polygons without using formula			
find volume of rectangular solids without using formula			
construct and draw two-dimensional figures			
distinguish two-dimensional figures, similar, congruent or similar and congruent			
identify and draw translations (slides), reflection (flips) and rotations (turns), of two-dimensional figures			

Mathematics (cont'd)

Mathematics	NAME _____ DATE _____		
The student will develop Grade 5 skills in mathematics.			
The student will:	has mastered	still learning	needs to learn
test congruency of polygons using translations, reflections and rotations			
name corresponding sides and vertices of congruent polygons			
identify and name line segments, lines, rays and angles			
construct pictographs, bar and line graphs			
interpret and solve problems using pictographs, bar, line and circle graphs			
read and write coordinates from a graph			
graph ordered pairs			
generate ordered pairs from a given relationship			

Mathematics (cont'd)

Mathematics	NAME _____ DATE _____		
The student will develop Grade 6 skills in mathematics.			
The student will:	has mastered	still learning	needs to learn
identify and name place value to billions (0.0001 – 1 000 000 000)			
write decimal numerals using expanded notation			
round numbers (0.001 – 999 999 999)			
identify and use proportional ratios			
express halves, quarters, fifths, as fractions or decimals			
express fractions and decimals as a per cent or vice versa			
identify and order integers			
read, write and order whole numbers and decimals (0.001 – 1 000 000 000)			
add and subtract whole numbers and decimals; estimate sums and differences			
demonstrate mastery of basic facts			
multiply whole numbers and decimals using one- two- and three-digit multipliers; estimate products			
divide whole numbers and decimals using one- two- and three-digit whole number divisors			
divide whole number and decimals using one decimal place divisors			
check multiplication by division and division by multiplication			

Mathematics (cont'd)

Mathematics	NAME _____ DATE _____		
The student will develop Grade 6 skills in mathematics.			
The student will:	has mastered	still learning	needs to learn
mentally compute simple addition, subtraction, multiplication and division			
calculate averages and percentages			
find perimeter of polygons with and without a formula			
find areas of triangles and rectangles using a formula			
find volume of rectangular solids using a formula			
read and determine distances according to a scale			
draw diagrams according to a scale			
read the 24-hour clock and write corresponding time notation			
understand and use the systems for metric prefixes of basic units, including the use of symbols: kilo, hector, dec, cent, mill			
express equivalent measures within units of length, capacity, mass and time, with symbols			
measure angles			
construct and draw prisms, pyramids, cones and cylinders			
translate, rotate, reflect and enlarge two-dimensional figures			

Mathematics (cont'd)

Mathematics	NAME _____ DATE _____		
The student will develop Grade 6 skills in mathematics.			
The student will:	has mastered	still learning	needs to learn
identify and test congruency, using translations (slides), reflections (flips) and rotations (turns)			
name corresponding sides, vertices, angles of congruent polygons			
identify and name intersecting lines, parallel lines, perpendicular lines and angles			
construct pictographs, bar and line graphs			
interpret and solve problems, using pictographs, bar, line and circle graphs			
locate points in all four quadrants			
generate and graph ordered pairs from a given relationship (no negative numbers)			

Reading

Reading	NAME _____ DATE _____		
The student will demonstrate Pre-grade 1 understanding of reading.			
The student will:	has mastered	still learning	needs to learn
recognize logos and signs			
have favourite books and stories			
recognize familiar pictures in stories			
develop interest in different kinds of stories and books			
create stories to match illustrations in books and stories			
describe story action which matches illustrations			
place book in proper position for reading			
flip through book			
turn pages one at a time			
recognize left to right and top to bottom progression			
vocalize as stories are read			
insert words and phrases while stories are read			
repeat stories from memory			
ask for favourite stories to be repeated			
demonstrate learning from books and stories			
distinguish between print and other marks on the page			

Reading (cont'd)

Reading	NAME _____ DATE _____		
The student will demonstrate Pre-grade 1 understanding of reading.			
The student will:	has mastered	still learning	needs to learn
recognize some letters and begin to demonstrate understanding of sound-letter correspondence			
use his or her experiences with sounds, letters or words to assist in reading			
begin to apply semantics or meaning clues as a strategy for predicting and identifying words and phrases			
begin to apply his or her knowledge and experiences of structure and patterns (syntactic cues) to identify words or phrases			

Reading (cont'd)

Reading	NAME _____ DATE _____		
The student will develop Grade 1 level reading skills.			
The student will:	has mastered	still learning	needs to learn
demonstrate book knowledge (left-to-right, book order)			
retell the content in random order			
read printed words and understand their meanings			
recognize the pattern in a story and may describe and/or explain it			
respond personally to a book (likes, dislikes, interpretations)			
share books confidently by reading, retelling or responding			
locate illustrations in a book to support what it is saying			
recognize that illustrations tell or enhance the story			
note titles, authors, illustrators			

Reading (cont'd)

Reading	NAME _____ DATE _____		
The student will develop Grade 2 level reading skills.			
The student will:	has mastered	still learning	needs to learn
provide a summary sentence to describe what the selection was about			
answer direct questions about the selection			
retell main events from selection in sequence			
locate or describe specific information in the text or illustrations to support personal thoughts and feelings			
identify the type of pattern in the book; e.g., the words rhymed, problem and solution			
search through a book to locate information for sharing			
select a book and give a simple reason for choice; e.g., read before, nice pictures, fun			
compare self and personal experiences to characters or events in the selection			
demonstrate storytelling behaviours; e.g., stance, awareness of audience, use of props			

Reading (cont'd)

Reading	NAME _____ DATE _____		
The student will develop Grade 3 level reading skills.			
The student will:	has mastered	still learning	needs to learn
provide a summary statement about the main idea of a selection			
provide descriptive details about information read			
provide descriptive details about the settings of main events			
provide descriptive details about the characters in a story			
use words that are associated with particular genres			
sequence the events in a similar order as in a selection			
express personal feelings, orally and in writing, about what was read			
refer to the author			
read silently for long periods of time			
self-correct when miscues interfere with meaning			

Reading (cont'd)

Reading	NAME _____ DATE _____		
The student will develop Grade 4 level reading skills.			
The student will:	has mastered	still learning	needs to learn
gather information from visual sources			
identify the point of view in a story or selection			
make generalizations about main characters			
discriminate fact from an author's opinion			
describe the feelings or emotions of characters			
determine feelings and attitudes of characters in a selection			
focus questions on the topic of a selection			
classify ideas from a selection into categories			
identify a variety of types and forms of literature and visual arts			

Reading (cont'd)

Reading	NAME _____ DATE _____		
The student will develop Grade 5 level reading skills.			
The student will:	has mastered	still learning	needs to learn
make predictions based on what has been read			
show understanding of a story by creating alternate story endings or tableaus			
determine characters' roles			
determine an author's purpose in a piece of writing			
identify and analyse point of view expressed by an author			
use conventions of print to enhance expression when reading aloud or role playing			
determine whether the story is fiction or non-fiction			

Reading (cont'd)

Reading	NAME _____ DATE _____		
The student will develop Grade 6 level reading skills.			
The student will:	has mastered	still learning	needs to learn
paraphrase the main ideas in a story or selection			
draw conclusions about characters' behaviours			
identify and respond to mood and theme in a selection			
analyse and appreciate point of view expressed by an author			
understand that each paragraph contains information that is linked to the previous paragraph			
make connections between two selections, situations or themes			
identify cause of events and effect on characters			

Writing

Writing	NAME _____ DATE _____		
The student will develop Pre-grade 1 level writing skills.			
The student will:	has mastered	still learning	needs to learn
hold pencil in tripod grasp (thumb, fist and second finger)			
trace own name			
print own name			
trace letters which incorporate horizontal and vertical lines (T, H, I, E, F, L, t, I, i)			
copy letters which incorporate horizontal and vertical lines			
trace letters which incorporate curved lines and straight strokes (a, b, c, d, o, p, B, C, D, O, P)			
copy letters which incorporate curved lines and straight strokes			
trace letters which combine straight lines and curves (G, J, E, U, e, f, g, h, m, n, q, r, s, u)			
copy letters made of straight lines and diagonals (M, N, Q, R, V, W, X, Y, Z, k, v, w, x, y, z)			
trace letters which incorporate diagonal lines			
copy individual letters when named			
experiment with pictures, diagrams, symbols, letters, words or phrases to represent ideas or experiences			

Writing (cont'd)

Writing	NAME _____ DATE _____		
The student will develop Grade 1 level writing skills.			
The student will:	has mastered	still learning	needs to learn
use a personal point of view to communicate a message (tone, voice)			
express personal feelings and experiences through words			
tell information in a straightforward list-like manner			
recall and retell events			
formulate and record ideas			
copy work from a model provided			
use drawing to complement written work			
rely on adult scribes			
connect ideas together by using a sequence such as: beginning and ending, a pattern, a writing form			
print along a line (left to right) with spacing between words			
make approximate spellings for some words by using consonant sounds and letter names as clues; e.g., strar for straw; horese for horse			
use standard spelling for known words			
use punctuation (periods)			

Writing (cont'd)

Writing	NAME _____ DATE _____		
The student will develop Grade 2 level writing skills.			
The student will:	has mastered	still learning	needs to learn
draw from personal background knowledge for story events			
vary print for emphasis; e.g., using all capital letters			
demonstrate awareness of time in a story sequence; e.g., one evening, the next day, in the morning			
present a problem and solve with a simplistic solution			
provide supportive details about some of the information			
use and sustain a pattern from literature or daily life			
organize ideas sequentially (beginning, middle, ending)			
use opening and closing sentences or signals; e.g., once upon a time, ever since, happily ever after, the end			
use connecting words in sentences; e.g., and, and then, but, so			
choose words to meet their own purposes			
use descriptive words			
use standard spelling for commonly used words			
spell words according to how they hear the consonant and vowel sounds; e.g., allwas for always, forist for forest			

Writing (cont'd)

Writing	NAME _____ DATE _____		
The student will develop Grade 2 level writing skills.			
The student will:	has mastered	still learning	needs to learn
use punctuation to indicate the end of a sentence			
include dialogue, usually unpunctuated			
use capitalization (in titles, to begin sentences)			
use form, size and spacing of letters consistently			
include a title			

Writing (cont'd)

Writing	NAME _____ DATE _____		
The student will develop Grade 3 level writing skills.			
The student will:	has mastered	still learning	needs to learn
communicate a message so that the reader understands the writer's intent			
foreshadow tone of story in title			
personalize thoughts and ideas			
appeal to the reader's interest in selection of content and details			
support the intent of the writing with descriptive details			
develop story elements of character, plot, setting			
order information in a coherent sequence (maintain topic)			
make a page layout visually appealing			
provide closure for the message			
attempt a variety of sentence types and lengths for effect			
vary sentence beginnings			
show general control of subject and verb agreement			
use specific words and phrases to add clarity and interest to the writing (strong nouns and verbs)			
show general control of spelling, punctuation and capitalization (errors present usually do not affect the clarity of communication)			
mark dialogue with quotation marks			

Writing (cont'd)

Writing	NAME _____ DATE _____		
The student will develop Grade 4 level writing skills.			
The student will:	has mastered	still learning	needs to learn
use the point of view of another participant as well as personal point of view			
communicate a clear message to the reader (focus on a topic, theme or concept)			
develop and connect beginnings and endings			
use simple, compound and complex sentence structures			
use correct verb tenses consistently			
vary sentence beginnings by using phrases			
organize information using a variety of techniques; e.g., point form, numbered paragraphs, webs			
choose nouns, verbs, conjunctions and phrases to achieve particular effects			
use generally correct spelling, capitalization and punctuation			
plan ideas prior to writing			
recognize some errors when reading own writing aloud and make necessary changes			

Writing (cont'd)

Writing	NAME _____ DATE _____		
The student will develop Grade 5 level writing skills.			
The student will:	has mastered	still learning	needs to learn
show clear style and voice			
use adjectives to create mood			
use dialogue to develop characters and enhance plot			
organize writing for conventional formats; e.g., letters, reports, books			
sequence ideas in a smooth flowing fashion			
control humour			
combine sentences effectively			
use precise and descriptive vocabulary appropriate to topic and style			
use a variety of punctuation appropriately			
use essentially correct capitalization, punctuation and spelling			
recognize appropriate syntax, grammar and sentence structure when proofreading own writing and make necessary changes			
continue a writing project over several days			

Writing (cont'd)

Writing	NAME _____ DATE _____		
The student will develop Grade 6 level writing skills.			
The student will:	has mastered	still learning	needs to learn
develop a clear introduction			
select details to illustrate an idea			
use a tone which is appropriate for the form			
relate what the student knows to new information and ideas			
link ideas using strategies such as compare and contrast, cause and effect, problem and solution			
explain a point of view			
organize writing using paragraphs			
use variety in sentence type and length			
control language and format to appeal to reader; e.g., lively, interesting, dynamic			
use vocabulary appropriate to a specific form and purpose; e.g., entertain (humour), persuade (argue), inform, explain, reflect			
use dialogue selectively and correctly punctuated			
use essentially correct capitalization, punctuation, spelling and grammar			
use strategies for editing independently			

Spelling

The following charts provide information about the grade level at which most students demonstrate particular spelling skills. It is important to remember that, as in all things students are expected to learn, they learn to spell in different ways and at different rates.

Phonic Analysis of Words

	Consonant Sounds	Vowel Sounds
Grade 1	• Key Consonants: b, c, d, f, g, h, j, k, l, m, n, p, r, s, t, v, w, y, z	• Short Vowels: a, e, i, o, u (medial position)
Grade 2	1. Regular consonant sounds (initial, medial, final): b, d, f, g, h, j, k, l, m, n, p, r, s, t, v, w, y, z 2. Blends: bl, pl, sl, fl, gl, cl, br, tr, gr, dr, fr, cr, spr, str, thr, st, sn, sp, spl 3. Digraphs: sh, ch, ng, nk, wh, th (voiced or unvoiced) 4. Variants: x, c, k, s, ck 5. Silent l	1. Short vowels: a, e, i, o, u (initial or medial position) 2. Long vowels represented by: a. single vowels; b. two vowels together; c. final e 3. Diphthongs: ow, ou, oy, oi 4. Digraphs: ay, oo, ee, ea, ow 5. Vowel sounds controlled by r: er, or, r, ur, ar 6. Final y 7. Unconventional spellings: a. single vowels (from, off, cold); b. silent e (give, done); c. two vowels (been, said); d. other (they, eye)
Grade 3	1. Initial blends: pr, sc, sk, squ, sm, tw, gw 2. Final blends: ft, ld, lk, mp, nd, nt, rd, sk, st 3. Silent: gh, t, w, b, k 4. Digraphs: gh (f-sound; e.g., laugh) 5. Variants: hard, soft c, g	1. Digraphs: ui, ai, ou, oa 2. Variants: ie 3. Unconventional spellings: a. single vowels (kind, full); b. silent e (whose, sure); c. two vowels (bread, friend, great); d. other (aunt, says, could)

Spelling (cont'd)

	Consonant Sounds	Vowel Sounds
Grade 4	• qu • ph spelling of f • ch spelling of k • g spelling of g or j sound (frog, bridge) • silent w (wrinkle) • silent s (island) • silent t (pitch, often) • gh as f (rough)	• al sound (chalk) • e sound (castle) • unconventional spellings (bush, lose, busy) • ei, ie sounds (weigh, field)
Grade 5		• el sound (model) • al sound (central) • unconventional spellings (does, canoe)
Grade 6		• unconventional spellings (route, onion)

Structural Analysis of Words

	Pre-fixes	Suffixes	Verb Forms	Plurals & Posses-sives	Contrac-tions/Abb-reviations	Compounds
Grade 1						
Grade 2		er, est, ing	• s or es for third person singular • d or ed ending for past tense	Plurals: add s or es Posses-sives: add s (yours)		Recognizing compounds (today)
Grade 3		Adding a suffix: a. when doubling or final consonant is required; e.g., hopped, hopping; b. when silent "e" is dropped; e.g., coming	• Change y to i before es and ed • Past, present, future (was, am, will be)	Plurals: change y to i before es; add es to words ending in x, s, ch Posses-sives: add 's	• One letter omissions • More than one letter omissions	Examples: airplane, something
Grade 4	un, re, dis, in, de	ly, ful, en, y, number suffixes (fifteen, fifty); other suffixes ness, less, tion		Plurals: change f to v before es	Abbreviations for days, holidays, months and proper names	

Structural Analysis of Words (cont'd)

	Pre-fixes	Suffixes	Verb Forms	Plurals & Posses-sives	Contrac-tions/Abb-reviations	Compounds
Grade 5	ex, pro, can, cam, pre, im	ment, ty, let (booklet), ite (favorite), ship (friendship), sion (occasion), ian (musician)		Posses-sives: form singular and plural posses-sives (nouns and pronouns)	Abbreviations of measures, titles and directions (Ave., St.)	Hyphenated compounds
Grade 6	bi, tri, ec	Other suffixes: ar (regular), ive, ure (future), ain (captain), age (voyage), ent (innocent), ant (servant), ate (senate), ence (difference), able, hood, ery (dictionary), ern (southern), ic (historic), ize (civilize), or (conductor), ous (dangerous)				• Two word compounds (per cent) • Names of places

Syllabication Dictionary and Glossary Usage

	Syllabication	Location of Words	Pronunciation of Words	Definitions and Word Forms
Grade 1				
Grade 2	Hearing two-syllable words (yellow, going)	• Using picture dictionaries for locating correct spelling of words • Alphabetizing to two letters		
Grade 3	Syllable division: open and closed patterns, primary accent	Alphabetizing to three letters	Diacritical marks indicating long and short vowels	
Grade 4	1. Three and four syllable words 2. Primary and secondary accents 3. Common syllables e, for, be, en, mis, al, ish	• Entry words: a. special type; b. divided into syllables; c. root words listed; d. abbreviations; e. separate entry for heteronyms • Guide words • Alphabetizing to four letters	Dictionary pronunciation guide: 1. Silent letters omitted 2. Consonant sounds represented by single consonant b, d, f, g, h, j, k, l, m, n, p, r, s, t, v, w, y, z 3. Two letter sounds: ch, sh, th, wh, ng, x as ks, qu as kw, nk as ngk, ch as k (choir), zh (measure), hw (what) 4. Vowel sounds: ů (foot), ũ (moon), e (her, turn, bird), o (haul, saw, all), ô (order), oi (boy, oil), å (arm), ou (cow, mouse), õ (shore) 5. Sch..... (rather, about) 6. Endings: ture as cher (picture), tion as shun (election) 7. Primary and secondary accents	• Separately numbered definitions for words with more than one meaning • Illustrative sentences used • Capitalization

Syllabication Dictionary and Glossary Usage (cont'd)

	Syllabication	Location of Words	Pronunciation of Words	Definitions and Word Forms
Grade 5	digraphs: ck, th, ch, sh (crock/er, oth/er); multi-syllable words	• Using dictionaries to locate correct spelling of words by making choices on the options: (coming, comeing, cuming, kumming, or koming) • Alphabetiz-ing to five letters	Endings: age as ij (cottage)	• Parts of speech • Synonyms • Alternate spellings (theatre, theater) • Irregular verb forms (trimmed, wrote) • Irregular comparative and superlative adjective forms (trimmer, trimmest)
Grade 6	consonant before ie	• Suffixes listed as entry words (less) • Prefixes listed as entry word (un)	Endings: r (offer, grammar, sailor); sure as zher (measure); ent as nt (student); ant as nt (servant); ive as iv (active); ate as it (separate)	

Extending and Enriching Spelling Skills

	Extensions	Enrichment
Grade 1		
Grade 2	• Homonyms (to, two, too) • Antonyms (last, first)	
Grade 3	• Homonyms (its, it's; ate, eight) • Antonyms (cry, laugh) • Synonyms • Heteronyms (close - [klos]) (close - [kloz])	
Grade 4	• Homonyms (whole, hole) • Unconventional spellings (minute) • Spelling of days, months, holidays, proper names • Heteronyms (lead - led) (lead - leed)	• Derivations • Proof reading
Grade 5	• Homonyms (hymn, him; isle, aisle, I'll) • Unconventional spellings (gloves) • Spelling of measures and numbers • Heteronyms (con'-test, con-test')	
Grade 6	• Homonyms (principal, principle) • Unconventional spellings (thread) • Heteronyms (sep'a ret', sep'a rit, or sep'rit)	Etymology

Classroom Behaviours

Classroom Behaviours	NAME _____ DATE _____		
The student will:	has mastered	still learning	needs to learn
arrive on time			
bring necessary materials to class			
be ready to begin lessons when introduced by teacher			
attend class regularly			
wait for own turn			
share information and ideas			
maintain appropriate appearance			
follow classroom rules			
demonstrate non-disruptive behaviour during class			
cooperate willingly with teacher and/or other staff requests			
cooperate willingly with appropriate peer requests			
respond to requests without delays			
negotiate with teacher and peers			
disagree using appropriate language			
accept assignments without complaining			
keep notebooks organized according to teacher expectations			
share materials			
follow classroom procedures			
demonstrate on-task behaviour			
manage class time effectively			
complete assignments on time			
adhere to behavioural contract			
work without extrinsic reinforcement			
demonstrate appropriate clean-up responsibilities			

Classroom Behaviours (cont'd)

Classroom Behaviours	NAME _____ DATE _____		
The student will:	has mastered	still learning	needs to learn
cooperate within a small working group			
demonstrate respect for another's opinion			
demonstrate respect for personal space			
admit mistakes and correct them			
accept criticism well			
check for understanding and paraphrase			
follow directions and timelines			
check for agreement			
encourage others			
share feelings			
respond to others' ideas			
demonstrate responsible action in situations outside the classroom			
adjust appropriately to new situations			
set realistic personal goals			
accept consequences of personal decisions			
manage time to include work, school and leisure			
demonstrate self-confidence			
recognize dangerous social situations			
recognize the difference between friends, family, strangers			
form positive relationships with adults			
form positive relationships with peers			
select appropriate friends			
demonstrate honesty with peers/adults			
express concepts of right vs. wrong			
respect others; i.e., person, property, etc.			

Section IV
Life Skills

Life skills are skills that are essential for personal well-being and that support the knowledge, skills and attitudes all students are expected to learn.

For the purposes of this document, life skills are organized in domains. A review of the literature indicates that there is no single recommended set of domains. Domains are usually broad and permit maximum flexibility in interpretation. The domains selected for use in this document have a high degree of commonality with domains described in the literature about programming for students with special needs. The following domains were selected for use in this document.

Domestic and family life: skills a student needs to learn to participate in domestic activity now and in the future.

Personal and social development: skills a student needs to participate in family and community life.

Leisure/recreation/arts: skills a student needs to learn to enable him or her to constructively occupy free time.

Citizenship and community involvement: skills a student needs to learn to maximize independent functioning in a wide range of environments within the community.

Career development: skills a student needs to learn to participate in the work place.

In the development and revision of curriculum, Alberta Education uses the terms *general learner expectations* and *specific learner expectations.* General learner expectations are concise statements that identify what students are expected to know, be able to do and be like on completion of a course or grade level of a program. Specific learner expectations indicate the context in which general learner expectations apply. They identify specific applications of what students are expected to know, be able to do and be like on completion of a course or grade level of an identified component of a program. The general learner expectations in each domain are similar for all students. The specific learner expectations in each of the domains will vary because of the different needs and abilities of each student.

The charts which follow provide a continuum of specific learner expectations for each of the general learner expectations associated with the domains selected for use in this document. The specific learner expectations are categorized under the headings *Pre-grade 1, elementary, junior high* and *senior high school* to provide a general reference point. However, because students learn at different rates and in different ways,

many will not demonstrate their learning in the same order or within the same category as printed in the charts. As well, many students will demonstrate expectations associated with senior high school without demonstrating expectations associated with earlier levels of schooling.

The charts provide a way of organizing specific learner expectations for individual students. The content of each chart is similar to that included in the literature review and the advice received in the preparation of this document. The skills in each chart are placed at the level at which most students demonstrate mastery. Some students may demonstrate mastery at earlier or later levels and in a different sequence than indicated in the chart.

The section, Checklists for Determining Starting Points of Instruction (page ESS.192), provides the content of each of these charts in a checklist format that can be used in determining starting points of instruction for each student.

Linking Essential and Supportive Life Skills with the Programs of Study

The charts which follow illustrate that learner expectations associated with essential and supportive life skills are similar to those from courses of study included in the programs of study.

Domain	General Learner Expectations	Courses With Similar General Learner Expectations
Domestic and Family Life	• learn about family life • perform cleaning tasks • plan and prepare meals • serve food • care for clothing • understand time • be aware of the community • understand how to manage money	• English, language arts, social studies • CTS, health, home economics • CTS, health, home economics • CTS, health, home economics • health, home economics • mathematics, business education, industrial education • language arts, social studies • business education, mathematics, social studies, IOP
Personal and Social Development	• demonstrate knowledge of self • demonstrate social skills • demonstrate knowledge of interpersonal skills • dress and undress independently • demonstrate fastening and unfastening • use the bathroom independently • bathe independently • demonstrate establishment and maintenance of relationships • groom self independently • eat independently • demonstrate independence in personal safety • demonstrate ability to communicate by telephone • be knowledgeable about the effects of substance abuse • use a computer independently	• health, CALM • health, social studies, CALM, IOP • English, health, language arts, social studies, IOP • health • health • health • health • CALM, health, social studies • CALM, health • health, home economics, CTS • CTS, health, science, social studies • business education, CTS, language arts, IOP • health, CALM • mathematics, CTS, language arts, IOP

Linking Essential and Supportive Life Skills with the Programs of Study (cont'd)

Domain	General Learner Expectations	Courses With Similar General Learner Expectations
Leisure/Recreation/Arts	• participate in games • demonstrate knowedge of games • use computer games • participate in recreational activities • demonstrate knowledge of games • be physically fit • express themselves through drama • develop an appreciation of music • use the public library • participate in arts and crafts	• physical education • physical education • social studies, mathematics, CTS • physical education • physical education • physical education • fine arts, language arts • fine arts • language arts • home economics
Citizenship and Community Involvement	• know how to conduct social interactions in the community • demonstrate safety in the community • use services available in the community • know how to travel in the community • know how to shop for personal needs • know how to order food in a restaurant • demonstrate environmental awareness	• English, language arts, social studies • health, social studies, science, IOP • health, social studies, IOP • health, social studies, IOP • CTS, home economics, business education, IOP • home economics, health • all courses
Career Development	• be prepared for the world of work • plan for a career • learn to manage time	• CALM, English, health, language arts, social studies, IOP • CALM, health, social studies, IOP • CALM, health, CTS, IOP

Developing a Curriculum Matrix[6]

A curriculum matrix is used to link the student's IPP objectives and the opportunities for achieving these objectives in general education classes. The matrix is completed by listing the IPP objectives along the left axis and the courses and/or activities along the other axis. The teacher then decides which objectives can be taught logically and appropriately during which courses and/or activities. The matrix may also be used to identify those IPP objectives that are more naturally addressed in other environments.

A blank form and two completed matrices follow.

NAME										
IPP Objectives	**General Education Classes**							**Other Environments**		

[6] From "Meeting functional curriculum needs in middle school general education classrooms," by S. Field, B. LeRoy and S Rivera, 1994, *Teaching Exceptional Children, 46*(2), p 42 Reprinted with permission.

Curriculum Matrix Sample Completed Form

Sample 1 – **RUTH (Elementary)**	General Education Classes							Other Environments		
IPP Objectives	**MATH**	**SCI**	**SOC**	**LA**	**PHYS ED**	**RECESS LUNCH**	**HLTH**	**LIB**	**BUS**	**STORE**
Read, listen and view for 15 minutes			X	X			X	X		
Gain increased physical control over her body					X	X	X		X	X
Use picture communication		X	X	X		X	X	X	X	
Increase interactions with peers/staff			X	X	X	X		X	X	

Curriculum Matrix Sample Completed Form (cont'd)

Sample 2 – **SAM (Secondary)**	General Education Classes							Other Environments		
IPP Objectives	**MATH 14**	**SCI 14**	**FOOD ST**	**WORK EXP**	**PHYS ED**	**COMPUTER**	**CALM**	**LIB**	**BUS**	**STORE**
Make single item purchase				X						X
Wheel his chair to a variety of locations		X	X		X	X	X	X		X
Use a variety of sources to gain information from his environment		X				X	X	X		
Interact with peers using his communication board	X	X	X			X	X			
Increase independence in daily routines	X	X	X	X	X	X	X			
Communicate choices	X	X	X			X	X	X		X

Program Analysis Worksheets (PAW)

Program analysis worksheets can assist in planning and managing program modifications. To develop a program analysis worksheet:

- list class learner expectations on the left hand side of the PAW
- list the type of assessment used for typical students
- determine if the student can achieve the learner expectation as it is
- determine if the student can achieve the learner expectation if the teacher adapts presentation/ environment, expectations, materials, assistance or assessment
- list relevant IPP objectives; e.g., the student raises a hand for attention, on the right-hand side of the sheet
- the student may be working on fewer learner expectations than other students; highlight these
- a blank form and two completed program analysis worksheets are provided on pages ESS.141–143. One was written for Katie and is based on the Grade 5 social studies program. The other was written for Ivan and is based on the Grade 11 CALM 20 program.

Note: There does not have to be an adaptation under each heading on the worksheet. The fewer adaptations the student needs to achieve the learner expectation, the better.

For more information on modifying programs, see Book 1 *Teaching for Student Differences* in the *Programming for Students with Special Needs* series.

Program Analysis Worksheet (Paw)[7]

Name: _____ Date Initiated: _____

Curricular Area: _____ Review Date: _____

			IS IT APPROPRIATE?		MODIFICATIONS	
Class Learner Expectations highlight appropriate learner expectations	Assessment	As is	With adapted presentation/environment, expectations, materials, assistance, assessment	Person Resp.	Individual Objectives (IPP)	Assessment — Comments (date achieved)

[7] From *Homecoming model* (p. 67), by J. S. Thousand, et al., 1986, Burlington, VT: University of Vermont. Reprinted with permission.

Program Analysis Worksheet (PAW)[8]
Sample Completed Form

Name: Katie

Date Initiated: September 30

Curricular Area: Grade 5 Social Studies – Topic A
Canada: Its Geography and People

Review Date: October 30

			IS IT APPROPRIATE?		MODIFICATIONS	
Class Learner Expectations highlight appropriate learner expectations	Assessment	As is	With adapted presentation/environment, expectations, materials, assistance, assessment	Person Resp.	Individual Objectives (IPP)	Assessment — Comments (date achieved)
The student will understand that Canada has distinct physical regions	draw a map of Canada with provinces/territories and capital cities	Y	will be given an outline map of Canada and be required to draw the provinces/ territories and mark the locations of the capitals Will orally identify each province/territory and capital and the scribe will write the names	teacher	Katie will be able to orally participate in class assignments, assistance with writing will be provided when necessary	Achieved, she had no difficulty with the vocabulary and names, she was able to spell the names correctly
	exam – label provinces/ territories and capital cities on a map of Canada	Y	will orally identify each province/territory and capital and the scribe will write the names			
The student will understand that Canada has distinct political divisions	written assignment – demonstrating an understanding of different groups having different viewpoints on, for example, the family	N	will present an audiotape or a videotape selection on how she views family and how another group of Canadians may view the family (compare and contrast – two points)	teacher		
The student will understand that Canadians modify and adapt to natural settings in ways that affect their lifestyle and environment	colour a map of Canada reflecting population density and compare this to climate	Y	none required			
	written exam – explain three ways a Canadians living in the north and b Canadians living on the East coast adapt to their environment	N	will take the written exam in an oral format with time extensions as necessary, a scribe will write the answers	teacher		

[8] From ECSS Educational and Counselling Support Services (1995) Reprinted with permission

Program Analysis Worksheet (PAW)[9]
Sample Completed Form

Name: Ivan Date Initiated: September 15

Curricular Area: Grade 11 CALM 20 – Theme 3 – Relationships Review Date: October 15

		IS IT APPROPRIATE?		MODIFICATIONS	
Class Learner Expectations highlight appropriate learner expectations	Assessment	As is	With adapted presentation/environment, expectations, materials, assistance, assessment	Person Resp.	Individual Objectives (IPP)	Assessment — Comments (date achieved)
Understanding relationships; personal and impersonal	oral report	Y	work with another student; use a reporter interview format; give three facts about family relationships	peer and teacher		
Recognizing commitments and expectations, levels of commitment, meeting personal needs, life cycle influences	written assignment; discuss three relationships from social, emotional, physical and emotional dimensions	N	will cut out two pictures; one showing how he feels about his mother; the other about his father	teacher		
Developing, maintaining, enhancing stable and satisfying relationships; relationships change, role of conflict and conflict resolution	demonstration through an interactive/ competitive game format	N	will identify orally or with pictures one thing he likes about peers in his circle of friends and one thing he does not like	teacher; circle of friends	Ivan will enhance his peer relationships by participating in lunch with his circle of friends	Achieved; he likes the company and dislikes being treated like a little kid
Dealing with grief and loss; identify the process and skills necessary	a collage depicting feelings related to a loss after one week; one month; six months; one year	Y	will find a picture of a person (or a pet) with whom he was close who either died or moved away; will be able to express appropriate feelings	teacher		
Choices and challenges; relationships and networks	participate in a team event where an individual cannot succeed alone	Y	will participate to the full degree he is able	teacher and peers	Ivan will participate with his circle of friends in various activities	Achieved; he participated in an obstacle course set up in the gym

[9] From ECSS Educational and Counselling Support Services (1995). Reprinted with permission.

General Learner Expectations by Domain

Domestic and Family Life

The student will:

- learn about family life (ESS.145)
- perform cleaning tasks (ESS.146)
- plan and prepare meals (ESS.147)
- serve food (ESS.148)
- care for clothing (ESS.149)
- understand time (ESS.150)
- be aware of the community (ESS.151)
- understand how to manage money (ESS.152).

Personal and Social Development

The student will:

- demonstrate knowledge of self (ESS.153)
- demonstrate social skills (ESS.154)
- demonstrate knowledge of interpersonal skills (ESS.155)
- dress and undress independently (ESS.156)
- demonstrate fastening and unfastening (ESS.157)
- use the bathroom independently (ESS.158)
- bathe independently (ESS.159)
- demonstrate establishment and maintenance of relationships (ESS.160)
- groom self independently (ESS.161)
- eat independently (ESS.162)
- demonstrate independence in personal safety (ESS.163)
- demonstrate ability to communicate by telephone (ESS.164)
- be knowledgeable about the effects of substance abuse (ESS.165)
- use a computer independently (ESS.166).

Leisure/Recreation/Arts

The student will:

- participate in games (ESS.167)
- demonstrate knowledge of games (ESS.168)
- use computer games (ESS.169)
- participate in recreational activity (ESS.170)
- be physically fit (ESS.171)
- express himself or herself through drama (ESS.172)
- develop appreciation of music (ESS.173)
- use the public library (ESS.174)
- participate in arts and crafts (ESS.175).

Citizenship and Community Involvement

The student will:

- know how to conduct social interactions in the community (ESS.176)
- demonstrate safety in the community (ESS.177)
- use services available in the community (ESS.178)
- know how to travel in the community (ESS.179)
- know how to shop for personal needs (ESS.180)
- know how to order food in a restaurant (ESS.181)
- demonstrate environmental awareness (ESS.182).

Career Development

The student will:

- identify and demonstrate selected competencies needed by the world of work (ESS.184)
- identify alternative career paths and plan for a career (ESS.185)
- learn to manage time (ESS.186).

Charts for Determining Starting Points of Instruction

Domestic and Family Life

Domestic and Family Life		The student will learn about family life.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • differentiate between immediate family members and others • greet family members • follow family rules that apply to self.	The student will: • demonstrate increasing awareness of home environment by identifying areas of the home and personal belongings • indicate understanding of concept of family; recognize siblings, parents, and self as a unit • identify belongings of other family members • identify family members by role • assume responsibility for self and belongings.	The student will: • identify extended family members by name and role • participate in family decision making.	The student will: • identify how family roles and responsibilities change with age • identify how own family is unique • recognize need for family courtesy and family rules • assume responsibility for own behaviour.

Domestic and Family Life (cont'd)

Domestic and Family Life		The student will perform cleaning tasks.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • recognize where toys and belongings are kept • recognize that familiar household items have a regular place • recognize and cooperate with familiar household routines.	The student will: • put toys away • recognize household chores that need to be carried out • assist with cleaning for a short period of time • identify cleaning tasks that need to be done • clean his or her own living space • initiate cleaning tasks in the classroom • use basic cleaning equipment with assistance.	The student will: • assist with cleaning areas of dwelling • independently undertake classroom cleaning chores • use cleaning equipment and supplies with assistance.	The student will: • care for own living and work space independently • select cleaning material and equipment and use independently • initiate household cleaning • clean others' belongings and living space.

Domestic and Family Life (cont'd)

Domestic and Family Life		The student will plan and prepare meals.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • distinguish between edible and non-edible substances • assist in selection of food items while shopping • use fork and spoon appropriately; use knife for some cutting of semi-solids.	The student will: • use condiments independently • prepare simple snacks • assist with chores related to food production • assist in setting the table • prepare uncooked breakfast • clean up after snacks • use kitchen utensils with safety • participate in family food shopping • know where food may be purchased • use kitchen appliances with safety.	The student will: • purchase food items • prepare school lunch • identify basic food order • independently prepare table for meal • independently clear table after meal • plan meals for one day • prepare a variety of simple meals.	The student will: • demonstrate independence in grocery shopping • make a simple shopping list • plan meals for week • interpret recipes • prepare simple recipes.

Domestic and Family Life (cont'd)

Domestic and Family Life		The student will serve food.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • get own food items and utensils for snacks • pour drink from a pitcher with assistance.	The student will: • offer food to others • get own lunch box, open containers, serve self • carry tray/plate of food • pour drinks for family members.	The student will: • pass food to family members and guests.	The student will: • take responsibility for serving food for entire meal.

Domestic and Family Life (cont'd)

Domestic and Family Life		The student will care for clothing.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • recognize storage places for clothing.	The student will: • place clothing in proper storage area • place soiled clothing in laundry area • hang clothing in closet • assist with sorting laundry • assist with folding completed laundry.	The student will: • launder personal items of clothing • read clothing labels • sort and fold laundry • identify clothing in need of repair • learn simple sewing techniques • sew buttons and hems • select and purchase clothing • iron flat items • pack for a trip.	The student will: • launder and iron clothing independently • identify and take appropriate clothing to dry cleaners.

Domestic and Family Life (cont'd)

Domestic and Family Life		The student will understand time.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • understand that different activities occur at different times of the day • follow a picture schedule • understand and use: today, this morning, tonight.	The student will: • understand and use: yesterday, tomorrow, last week, next week, last year, next year • respond to time signals at school • respond to time cues (table setting and meal time, bathing and bedtime) • begin to organize work and play time • tell time on digital clock • use analogue clock/watch with assistance.	The student will: • tell time • organize personal time • schedule activities • tell time from analogue clock/watch.	The student will: • develop a personal schedule for school activities over longer periods of time.

Domestic and Family Life (cont'd)

Domestic and Family Life		The student will be aware of the community.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • recognize basic personnel associated with community services • visit and use community services with adults.	The student will: • identify areas adjacent to home neighbourhood • identify community services • identify personnel associated with community services • identify and locate key locations in school community • follow the rules of the neighbourhood • identify community facilities • distinguish between civic, provincial and federal government.	The student will: • identify cultural differences in the community • use community services with independence • use community facilities with independence • describe responsibilities of civic, provincial and federal government.	The student will: • understand the importance of community rules • understand rights as an individual • be aware of international government • be aware of the role of international government agencies.

Domestic and Family Life (cont'd)

Domestic and Family Life		The student will understand how to manage money.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • apply the term "money" to all coins and bills • sort and match coins.	The student will: • distinguish different coins • label coins • recognize that money is needed for purchases • match coins required to make a purchase • manage allowance • understand equivalent values of coins • recognize coins and bills in combination • write money symbols • identify $2, $5, $10, $20 dollar bills • identify dollars and cents when written • perform tasks for small monetary rewards • understand people earn money by doing something for someone else • manage bank account with assistance.	The student will: • keep money in a safe place • save money • perform small jobs for money • purchase items independently • manage bank account with assistance.	The student will: • understand value of money • earn money regularly • compare prices of similar materials • understand borrowing, repayment • budget and plan for expenditures. • manage a bank account.

Personal and Social Development

Personal and Social Development		The student will demonstrate knowledge of self.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • understand his or her own name • know names of family members • know gender • state siblings' names • state town or city • state birthday.			

Personal and Social Development (cont'd)

Personal and Social Development		The student will demonstrate social skills.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • maintain eye contact with care giver • refrain from unattractive or rude gestures and noises in public • attempt social contact with age peers • display affection to age peers and adults.	The student will: • maintain appropriate distance when speaking to others • refrain from touching genital area of self or others • respond to and initiate social greeting • respect personal space of self and others • say "excuse me" before interrupting • apologize for wrong doing • demonstrate socially acceptable behaviour • laugh at appropriate points in a story or situation • seek privacy for clothing adjustment • look to others for social cues • touch others only when socially acceptable.	The student will: • use appropriate titles to address adults • pause and allow others to speak • respect privacy of others.	The student will: • initiate and pursue conversation • conclude conversation politely.

Personal and Social Development (cont'd)

Personal and Social Development		The student will demonstrate knowledge of interpersonal skills.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • approach peers without fear • demonstrate affection for age peers.	The student will: • become aware of inappropriate touching • accept choices made by others • respond to verbal and non-verbal communication • resolve minor conflicts • categorize familiar and unfamiliar people • verbalize desire to be friends • initiate friendly activity • address other students and adults properly • identify person to whom need can be expressed • recognize roles of familiar people • distinguish between needs and wants.	The student will: • communicate in a number of ways • get attention of listener(s) before speaking • seek assistance when needed • intervene in unsafe or conflict situation • modify behaviour as required • recognize mood changes in others.	The student will: • ask questions to get information • communicate feelings in a variety of ways • make choices between activities • respond appropriately to familiar and unfamiliar people with respect to age and role • contribute to classroom decision making • resolve conflict with peers without assistance.

Personal and Social Development (cont'd)

Personal and Social Development		The student will dress and undress independently.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • cooperate while being dressed/undressed • assist with dressing/undressing • put on/remove sleeved garment with assistance • put on/remove legged garment with assistance • put on/remove socks • remove shoes independently • put shoes on correct foot • put on/remove sweaters, T-shirts • manage zippers, snap and velcro fasteners • dress/undress independently.	The student will: • dress appropriately for activity • select appropriate clothing for weather • tie bow knot • manage back fastener.	The student will: • differentiate soiled clothing from clean, pressed from wrinkled • change clothing when soiled.	The student will: • select clothing appropriate to occasion • be aware of proper clothing fit • clean shoes • be aware of basic colour and fashion coordination • select some of own wardrobe.

Personal and Social Development (cont'd)

Personal and Social Development		The student will demonstrate fastening and unfastening.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • unbutton single large buttons • zip/unzip zipper without separating or inserting shank • snap or hook clothing in front • unzip front zipper on jacket, separating shank • button series of medium buttons on front of clothing • unbuckle shoe or belt • buckle up shoe strap or belt • zip up jacket zipper inserting shank.	The student will • thread lace through shoe eyelet • untie knot on apron or shoe lace • tie an overhand knot (first knot of shoe tying) • tie bow knot of shoe lace • tie hood strings on coat • button back buttons/snap back snaps.	The student will: • hook/unhook bra fastener • tie bow knot on apron behind back.	

Personal and Social Development (cont'd)

Personal and Social Development		The student will use bathroom independently.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • indicate he or she is soiled • communicate need to use toilet • use potty independently • control bowel • communicate need to urinate; need for bowel movement • use toilet independently • urinate independently • stay dry through the night • complete bowel movement independently • care for all toiletting needs independently.	The student will: • use facilities in appropriate manner • wipe self independently after bowel movement • flush toilet consistently following use • recognize and use appropriate restroom.	The student will: • be socially acceptable in washroom use and transfer learning to new situations • be aware of health and personal hygiene safety issues in relation to use of public facilities.	

Personal and Social Development (cont'd)

Personal and Social Development		The student will bathe independently.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • cooperate with care giver when washing and drying hands • wash and dry hands with limited assistance • wash and dry hands independently • wash and dry face with assistance • turn water taps on and off independently • adjust tap to achieve desired water temperature and pressure • wash and dry face independently • bathe with assistance, demonstrating awareness of safety issues of water temperature and depth.	The student will: • bathe without assistance • draw water independently • shampoo hair.		

Personal and Social Development (cont'd)

Personal and Social Development		The student will demonstrate establishment and maintenance of relationships.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • interact positively with peers.	The student will: • begin to develop behaviour associated with friendship • want to be friends with many peers • begin to recognize behaviours characteristic of friendship • begin to recognize behaviours not characteristic of friendship • establish friendships with family, classmates and school staff • learn about human sexuality.	The student will: • verbalize liking of peers • understand dating behaviour • recognize the responsibility of friendship • develop longer lasting relationships with members of both sexes • understand human sexuality.	The student will: • develop long-term friendships at school and in the neighbourhood • understand dating behaviour • demonstrate appropriate sexual behaviour • use correct language when describing sexual behaviour.

Personal and Social Development (cont'd)

Personal and Social Development		The student will groom self independently.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • blow nose upon request • wipe nose when asked • brush teeth with assistance • comb hair • brush teeth independently • brush hair with assistance • wipe nose voluntarily • brush hair independently • practice hygiene associated with coughing and sneezing.	The student will: • clean nails • use deodorant.	The student will: • clean glasses • manage hygiene associated with menstruation • purchase personal care items • use cosmetics and grooming aids.	The student will: • maintain cleanliness of comb and brush • manage hair care; washing and styling • care for personal needs • shave.

Personal and Social Development (cont'd)

Personal and Social Development		The student will eat independently.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • drink from cup with assistance • drink from cup independently • use spoon to feed self • suck from straw • manage cups or glasses with one hand independently • chew food properly • use fork and spoon appropriately; use knife for some cutting of semi-solids.	The student will: • communicate need to eat • broaden variety of preferred foods.	The student will: • associate food items with an order for eating • associate foods and sources • control food consumption • identify foods by label.	The student will: • select appropriate food for meal • classify all foods • choose a balanced diet • recognize reasons for controlling consumption.

Personal and Social Development (cont'd)

Personal and Social Development		The student will demonstrate independence in personal safety.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • demonstrate safe use of play equipment • put playthings away • cooperate during activities promoting increased safety; e.g., accept use of seat belts, hold hands while crossing street • respond to commands such as "stop, no, don't touch, danger."	The student will: • use small objects with care and safety • demonstrate knowledge of safety rules • respond to supervision in play areas • warn others of danger • practise bicycle safety • know the dangers of not following safety rules • demonstrate safe use of recreational equipment • practice fire safety; follow routines of fire drills • use community recreational facilities safely • recognize where to seek help when hurt.	The student will: • organize work and play space to maximize safety • demonstrate safe use of equipment for work and play • determine unsafe features of work and play equipment.	The student will: • follow directions given in emergencies • independently use equipment • demonstrate knowledge of first aid procedures • know how to access emergency services.

Personal and Social Development (cont'd)

Personal and Social Development		The student will demonstrate ability to communicate by telephone.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • play with the phone • imitate phone conversation.	The student will: • answer the phone with a clear "hello" • use touch tone and dial phones • respond appropriately if call is for someone else • notify person wanted • carry on meaningful conversation if call is personal • use different responses for different types of calls • make local calls • use pay phone • write messages to be conveyed if call is for others • know how to use an answering machine.	The student will: • take and convey messages verbally • use yellow pages • use talking yellow pages • make long distance calls.	The student will: • ask for wanted party properly • end calls politely • hang up if caller refuses to identify self or uses obscene language • use directory assistance • locate number in phone book • access fax machine technology.

Personal and Social Development (cont'd)

Personal and Social Development		The student will be knowledgeable about the effects of substance abuse.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will:	The student will: • understand that some substances can be harmful • identify the symbols for hazardous household products • learn the definition of a drug and understand that many commonly used substances can be considered drugs • understand that drugs can be helpful and harmful • distinguish between prescription and non-prescription drugs • demonstrate knowledge about the effects of caffeine, tobacco and alcohol • differentiate between use and abuse of drugs.	The student will: • identify types of drugs related to drug use and abuse • understand the effects of use and abuse of tobacco, alcohol and other drugs • know about the consequences of tobacco, alcohol and other drug abuse • understand the factors that may influence drug use/abuse	The student will: • be able to assess the risks to one's health and/or well-being related to the use/abuse of alcohol and other drugs • understand key issues related to impairment and driving • be aware of services available for the treatment of substance abuse.

Personal and Social Development (cont'd)

Personal and Social Development		The student will use a computer independently.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will:	The student will: • turn the computer on and off • handle disks or other storage media that the computer uses • use a printer; turn it on and off and load it with paper • locate keys on keyboard using space bar, return, shift keys, cursor movement keys and escape key • recognize that the keyboard has a left and right hand side and that specific fingers are to be used for specific keys • perform simple trouble-shooting routines.	The student will: • keyboard, using proper techniques • use other hardware peripherals such as a mouse, modem, laboratory probes, MIDI keyboards, CD-ROM.	

Leisure/Recreation/Arts

Leisure/Recreation/Arts		The student will participate in games.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • participate in games led by others • understand taking turns • understand sharing equipment • imitate play activity of others • engage in symbolic play.	The student will: • attend to task • respond to direction from instructor • use courtesies associated with games • verbalize rules of games • participate in games with low level of organization (indoor/outdoor with decreasing amount of adult direction) • increase repertoire of games • initiate game activity • participate in intramural activity • participate in organized races • play simple games with others.	The student will: • participate in community led game activity • generalize skills to other games • show others how to play game.	The student will: • practise skills required for game • demonstrate sportsmanship in game activity • understand game safety • generalize game safety to other games.

Leisure/Recreation/Arts (cont'd)

Leisure/Recreation/Arts		The student will demonstrate knowledge of games.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • assemble interlocking puzzles • put away games when finished • play card games requiring matching and sorting (simple classification).	The student will: • share items • play simple board games • play with electronic games • take turns in games • behave appropriately while waiting for turn • complete simple puzzles • play simple card games • understand purpose of rules for games.	The student will: • play board games requiring participant to take turns and follow complex rules • play card games with more complex playing procedures and more complex rules • play educational games • cooperate as a team player.	The student will: • play card games requiring memory skills and strategic play • understand leader/follower positions in games • play board games requiring playing strategies • complete word puzzles.

Leisure/Recreation/Arts (cont'd)

Leisure/Recreation/Arts		The student will use computer games.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • know how to activate and deactivate game • play computer games with large display and manipulated by large muscle movement.	The student will: • use hand held electronic games • have favourite games • play games with lower levels of complexity • share games • know the vocabulary associated with computer games.	The student will: • attempt variety of games • attempt more complex games • engage in competition with others playing same game.	

Leisure/Recreation/Arts (cont'd)

Leisure/Recreation/Arts		The student will participate in recreational activity.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • play with toys • imitate play activity of others • attend to single activity for short periods of time • listen to radio and tapes • watch television • attend movies with others.	The student will: • attend to play activity for longer periods of time • participate in community recreational activity with assistance • indicate preference for recreational activity • have preferences for specific media forms; e.g., television, comics, radio, pictures • make choices among available movies, videos • participate in community team sports activity (hockey, ball, soccer) • participate in track meet activities • participate in individual sports (golf, bowling, biking, roller blading) • demonstrate appropriate spectator skills • develop preferences for media themes (adventure, romance, western, science fiction) • go to movies with peers.	The student will: • specify preference about recreational activity • broaden the range of recreational activity in which he or she participates • develop preferences for particular actors.	The student will: • initiate participation in recreational activity • increase independence in participation • broaden recreational activity • develop preferences for a wider range of visual arts.

Leisure/Recreation/Arts (cont'd)

Leisure/Recreation/Arts		The student will be physically fit.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • require less support in movement activities • climb play apparatus • ride a tricycle.	The student will: • participate in group physical activity • participate in individual physical activity • play ball games requiring large muscle activity • become involved in intramural activity • complete simple gymnastic movements.	The student will: • participate in games requiring small muscle control (ball throwing and catching, marbles) • understand importance of fitness; become interested in fitness activity • help develop group fitness plan.	The student will: • broaden range of activities; summer sports, winter sports and individual pursuits • demonstrate awareness of impact of diet on physical fitness • develop individual fitness plan • maintain physical fitness routine.

Leisure/Recreation/Arts (cont'd)

Leisure/Arts/Recreation		The student will express himself or herself through drama.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • imitate simple actions • imitate simple sounds • participate in dress-up activities • participate in symbolic play.	The student will: • imitate the actions of familiar animals • imitate the actions of familiar people • demonstrate feelings • role play familiar routines • participate in group activities • demonstrate actions associated with an activity • repeat parts of stories and verses.	The student will: • portray characters from a story or play • demonstrate a particular role from a story or play • demonstrate emotions of characters • participate in impromptu drama.	The student will: • take part in dramatic productions • demonstrate feelings and emotions.

Leisure/Recreation/Arts (cont'd)

Leisure/Recreation/Arts		The student will develop appreciation of music.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • respond to music by facial expression, clapping, playing simple instruments.	The student will: • listen to music for enjoyment • participate in musical games • imitate rhythmic movements • operate cassette recorders • play more complex musical instruments • participate in action songs.	The student will: • dance • move to music • understand more complex rhythm patterns • request partner to dance.	The student will: • perform contemporary dance forms • listen to music as a source of enjoyment.

Leisure/Recreation/Arts (cont'd)

Leisure/Recreation/Arts		The student will use the public library.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • accompany others to library • select books with assistance • attend story time for short period • choose stories.	The student will: • listen attentively to story • select familiar books for reading • develop favourite categories of books • select books from a range of topics • select chapter books • know who the library staff are • select tapes, CDs and videos in library.	The student will: • use public library independently • begin to select books about areas of personal interest • select library material other than books; e.g., magazine or newspaper articles • understand responsibility for library materials • understand fines for overdue/lost material.	The student will: • know about other libraries.

Leisure/Recreation/Arts (cont'd)

Leisure/Recreation/Arts		The student will participate in arts and crafts.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • explore a variety of media such as paints, markers, chalk or fingerpaint • explore gluing with a variety of collage materials • draw simple pictures with representation; e.g., face, house, car, tree • imitate simple crafts using cutting and gluing.	The student will: • use craft materials creatively or to copy a model • choose from several projects to make a craft • follow several simple illustrated steps to complete a craft • complete a project over time.	The student will: • develop interest in one or more arts or crafts activities which can be done independently as an enjoyable leisure activity.	The student will: • participate in arts and crafts activities sponsored by community organizations.

Citizenship and Community Involvement

Citizenship and Community		The student will know how to conduct social interactions in the community.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • express needs • begin to recognize roles of others in community • ask others for help when needed.	The student will: • communicate needs more clearly • communicate needs to appropriate person • recognize role of service providers • use appropriate language to ask for services (from clerks, food servers) • discriminate between service providers and others • discriminate between friends and others • begin to settle disputes in acceptable ways.	The student will: • settle disputes and disagreements in an acceptable manner • offer to help others.	The student will: • conduct social interactions in community with confidence • recognize cultural differences in community.

Citizenship and Community Involvement (cont'd)

Citizenship and Community		The student will demonstrate safety in the community.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • obey "WALK, WAIT, DON'T WALK" signals • obey "STOP" signal • know meaning of "block parent" • recognize warning sign at railway crossing • respond to supervision • identify safe places to play • seek help when needed • obey buckle up sign or command.	The student will: • demonstrate safe use of play equipment, objects and materials • recognize and understand warning and safety signs; e.g., poison, explosives, flammable, fire exit, keep out, exit only • recognize and respond appropriately to warning sirens; e.g., fire alarm, sirens, smoke alarms • recognize emergency exits • expand knowledge of safety associated with facilities (swimming pool, skating rink) • know how to use 911 • care for minor injuries • manage personal medication • know how to set off fire alarm • demonstrate safe riding practices • know sources of help in emergency situations (block parent, police, bus driver, neighbours) • develop a home plan for fire safety.	The student will: • recognize consequences of not obeying safety rules • recognize dangers to personal safety • know first aid procedures • understand antidotes for hazardous products.	The student will: • alert others of danger • recognize importance of keeping equipment in good operating order • know how to travel safely on public transportation • teach first aid procedures to others • understand first aid associated with hazardous products • recognize dangerous goods routes.

Citizenship and Community Involvement (cont'd)

Citizenship and Community		The student will use services available in the community.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • accompany responsible adults to service outlets in the community • visit health clinic with responsible adult • attend story time at public library.	The student will: • accompany others on public transportation • deposit letter to be mailed in mail box • purchase stamps at post office outlet • mail letter at post office • meet with school nurse and other medical professionals at school • associate services available with location • wait in line for service • sign out selections at public library • associate staff role with community service • ask for help from community service personnel • use designated change rooms in public athletic facilities • follow current events in community paper.	The student will: • use public library independently • use change rooms independently • distinguish between recreational activity and services related to personal health and welfare • locate and use banking services • mail parcels at post office outlet • know from whom to seek information about the community.	The student will: • use community services independently • evaluate services provided • use delivery service of post office • consult doctor when necessary • establish medical check-up routine.

Citizenship and Community Involvement (cont'd)

Citizenship and Community		The student will know how to travel in the community.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • differentiate between vehicles • move about house, yard and school yard • practice safety rules • demonstrate understanding of directional terms — right, left, forward, back • know name, address, phone number; how to use emergency services.	The student will: • respond to travel commands; e.g., no standing • recognize familiar destinations • know safety rules associated with travel • travel throughout the community with increasing independence • relate mode of transportation to planned journey • recognize payment required for some forms of transportation • operate traffic safety equipment • identify own school bus • cross street independently • know when to refuse rides • understand safety habits associated with riding a bike • follow travel schedule; be at pick-up points on time.	The student will: • respond correctly to traffic signals • know how to seek assistance while travelling • know route between home, school, familiar places.	The student will: • travel independently throughout the community • participate in driver training program • use public transportation system • understand the safety habits associated with driving a vehicle.

Citizenship and Community Involvement (cont'd)

Citizenship and Community		The student will know how to shop for personal needs.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • behave in an appropriate manner when in stores.	The student will: • be aware of necessity for payment • use facilities in proper manner • know where needed items can be purchased within the community; within a large store • recognize directional labels in stores • take cue from others (lining up, standing quietly) • select item and enact payment (item and amount are prearranged) • request specific items in store • locate specific aisles in stores.	The student will: • complete a transaction independently • request assistance from clerk, if necessary.	The student will: • list possible purchases and prioritize items.

Citizenship and Community Involvement (cont'd)

Citizenship and Community		The student will know how to order food in a restaurant.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • indicate food choices • stand in line with others • deposit used food containers in supplied garbage bins.	The student will: • know different types of restaurants • verbalize food choices • select and order food choices independently • understand payment required • select and obtain food items from vending machine • make alternate choices if preference not available • wait in line and follow line independently.	The student will: • accompany peers to fast food outlet • select, order, pay for fast food.	The student will: • select broader range of food outlets to visit • evaluate outlets • have food preferences • order a complete meal in restaurant.

Citizenship and Community Involvement (cont'd)

Citizenship and Community		The student will demonstrate environmental awareness.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • recognize plants and animals in the community • dispose of litter in proper container.	The student will: • develop understanding of weather and climate • develop understanding of effect of weather and climate on safety and planned activities • recognize natural land forms • identify and dispose of litter • participate in school recycling projects • specify use for leftovers • recognize a variety of litter containers • identify excessive use of energy (lights left on, equipment left running) • understand overuse threatens plants, animals and energy sources.	The student will: • understand people have control over the use of energy sources.	The student will: • generalize understanding of conservation • practise conservation in personal life.

Career Development[10]

The goals of career development for all students, including those with special needs, are:

- self-exploration and assessment
- development of skills related to personal living and employability
- career awareness
- career exploration
- career preparation.

Career development is a process that is the same for all students. Like all students, students with special needs need to learn skills which will enable them to be successful and independent in their adult life. The process for career development includes:

- occupation preparation and search
- occupation acquisition
- occupation maintenance.

School-community partnerships can help the school by providing practical experiences related to a range of life skills and a wide variety of career opportunities. The following charts and information are provided to help ensure that students with special needs realize success in learning related to career development.

Planning programming to help students achieve these objectives should be integrated into instructional activities in a developmental way so that these students can gain career concepts and learn to demonstrate the necessary behaviour. The graphic on page ESS.187 illustrates a continuum of career development. As in all developmental approaches, the concepts and attitudes learned during initial stages of development are integrated with the concepts and attitudes learned later.

A comprehensive career development program should include:

- instruction in functional academics
- a general introduction to the world of work
- instruction in the use of leisure time
- knowledge of parenting as an important career
- training in maintaining and locating a occupation
- assessment of vocational preferences and aptitudes
- counselling for parents about career choices for their child
- a range of options for providing off-campus experiences in the school and community
- social skills training
- counselling about career choices
- the development of skills for decision making
- provision of services to help the student adjust to the world of work.

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[10] From *Best practices in mild mental retardation*, by J. R. Patton, E. A. Polloway, G. A. Robinson and L. R. Sargent, 1989, Reston, VA: Council for Exceptional Children. Adapted and reprinted with permission.

Career Development

Career Development		The student will identify and demonstrate selected competencies needed by the world of work.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • complete simple tasks.	The student will: • carry out assigned classroom or in-school tasks • complete task within a given time frame • adapt to requirements of new tasks • demonstrate a positive attitude about tasks • be consistent in the performance of routine tasks • accept direction • develop the habit of punctuality.	The student will: • carry out assigned in-school tasks • recognize the relationship between work and earnings • approach new tasks willingly • consider tools and equipment needed for tasks • self-evaluate selected task performances • maintain specified levels of quality in assigned tasks • observe safety rules • maintain satisfactory personal appearance • visit potential work sites • identify appropriate work-site behaviours • learn vocabulary of a variety of occupations • role play occupation interviews.	The student will: • complete an off-campus experience placement • demonstrate appropriate interpersonal skills in work environments • develop a personal resume • complete applications for selected occupations • complete a real or simulated occupation interview • use the telephone on occupation search • read and interpret help wanted advertisements • evaluate and apply for occupational benefits • become aware of legal rights of employees • understand meaning of income tax • complete income tax return with assistance • read and comprehend payroll deduction statements.

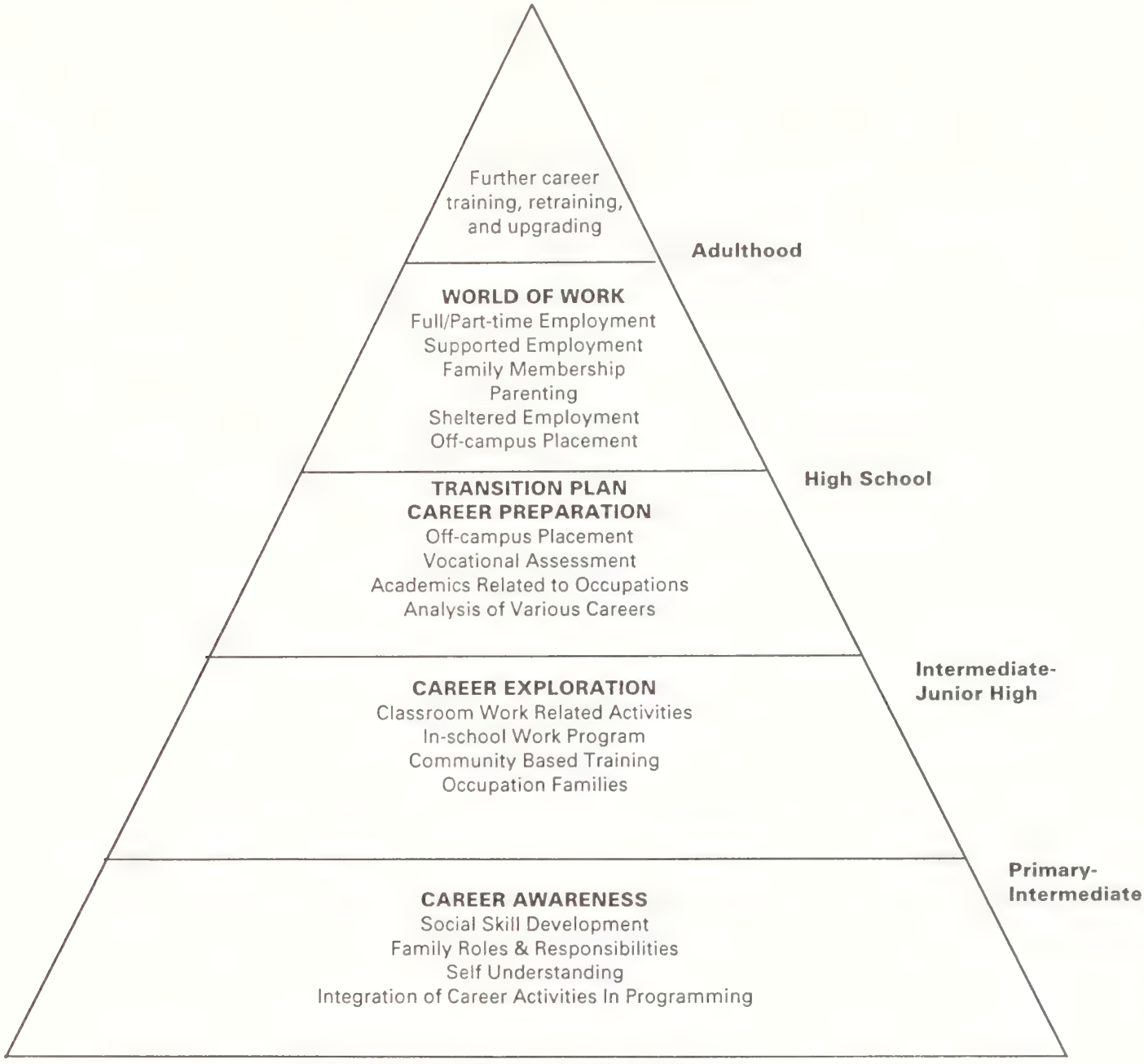
Career Development (cont'd)

Career Development		The student will identify alternative career paths and plan for a career.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • approach simple tasks with direction • comply with simple directions.	The student will: • be aware of family members work • recognize that different occupations require different skills.	The student will: • describe occupations of family members • describe competencies required in particular occupations • identify jobs of interest • obtain information about jobs of interest; e.g., entry-level requirements, wage rates • identify own interests and aptitudes.	The student will: • recognize own strengths and limitations in relation to occupation requirements • identify a job of interest that is commensurate with interest and abilities • seek work experience to support occupation interest • perform volunteer tasks • develop a career portfolio containing interests, aptitudes and evidence of career exploration.

Career Development (cont'd)

Career Development		The student will learn to manage time.	
Pre-grade 1	Elementary	Junior High	Senior High
The student will: • indicate familiarity with routines • return to classroom quickly after recess and lunch breaks.	The student will: • use words associated with time of day (morning, night, afternoon) • respond to time signals at school • plan free time activities • sequence steps in simple routines • know importance of being on time • tell time using digital clock • use analogue clock/watch with assistance • complete tasks in assigned time.	The student will: • help develop classroom schedule • attend to tasks • manage requests that result in time conflicts • tell time from analogue clock/watch.	The student will: • prepare personal time schedule • budget time for activities • complete time sheet.

Continuum of Career Development[11]



CONTINUUM OF CAREER DEVELOPMENT

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[11] From *Best practices in mild mental retardation*, by J. R. Patton, E. A. Polloway, G. A. Robinson and L. R. Sargent, 1989, Reston, VA: Council for Exceptional Children. Adapted and reprinted with permission

Preparing for Off-campus Learning Experiences

The following chart indicates student learning that will contribute to successful off-campus experience placements.

Elementary	Junior High School	Senior High School
The student will: • demonstrate dependability, initiative, reliability, perseverance and cheerfulness • learn about the calendar, time, money, shape, colour, quantitative concepts, written and spoken vocabulary • know about occupation families — understanding occupations related with products, social, managerial and human relations; similarities and differences between occupations; generalization regarding work • experience success at in-classroom work experience.	The student will: • apply academic learning to occupation-related activities • participate in the evaluation of vocational interests • participate in school work experience • gather information about occupations • learn work-site behaviours • have opportunities for decision making • visit potential occupation sites • learn vocabulary of a variety of occupations.	The student will: • participate in role playing for specific occupations • complete a off-campus experience placement • participate in occupation shadowing • receive a vocational assessment • receive occupation counselling • help develop a transition plan for moving from school to the world of work.

Providing students with opportunities for off-campus learning experiences is an effective strategy for acquainting them with the world of work. Providing off-campus experience opportunities requires careful planning to ensure that the opportunity for the student is maximized and that the employer benefits from the association as well.

Although basic work-site knowledge, skills and attitudes can be learned in the classroom, the opportunities for demonstrating career development competency is best provided through off-campus experience placement. An objective to be accomplished through off-campus learning experiences can be part of a student's IPP.

Planning Off-campus Learning Experience Opportunities

The following checklist provides a samples of items to be included in planning off-campus experience opportunities.

Survey opportunities for off-campus learning experiences in the community.	
Contact employers to inform them about off-campus experience education for students with special needs.	
Inform employers of their responsibilities to students and the benefits of off-campus experience to them and the student.	
Determine willingness of employers to consider off-campus experience students in the work site.	
Examine the work site to determine experiences that could be provided.	
Review the student's knowledge, skills, and attitudes related to off-campus experience learning.	
Discuss placement of the student at work site with parents.	
Visit work site with student; acquaint student with occupation opportunities.	
Determine student acceptance of placement; obtain parent permission in writing.	
Determine specific work assignment with student, parents and employer.	
Role play work-site responsibilities in classroom	
Arrange student transportation to work site.	
Ensure student knows who to contact if in difficulty; ensure employer knows who to contact.	
Monitor student performance at work site.	
Evaluate student performance at work site.	
Acknowledge contribution of employer to off-campus experience program.	

Suggestions for Evaluating Potential Off-campus Sites

Answers to the following questions will help determine if a particular off-campus site provides the best work-experience placement for a student.

- Is the setting one which the students and his or her peers will value?
- Is the work at the site consistent with the student's interests?
- Does the off-campus site provide opportunities for the student to interact with people who are not disabled?
- Is the work environment safe?
- Does the off-campus site provide ongoing opportunities for learning?

Tips for Students and Parents about Off-campus Experience Placement

The following tips apply to all students participating in off-campus learning experience programs.

Students should:

- report to work a few minutes early
- not leave work early
- take breaks as directed by the work-site supervisor
- work safely at all times
- obey work-site rules
- tell the supervisor at the work site about any accidents
- let the work-site supervisor know if they are sick and can't be at work
- dress appropriately.

Feedback From the Employer

The following sample checklist can be used to obtain daily feedback from the employer at the off-campus site.

Employer's Daily Feedback

Date	**Employer/Supervisor**
Student	**Work Site**
1. Was _____ on time for work today?	YES/NO
2. Did _____ understand what he was expected to do?	YES/NO
3. Did _____ complete his work assignment?	YES/NO
4. Was the quality of the work satisfactory?	YES/NO
COMMENTS:	
Please send this form back to the school with the student	

Checklists for Determining Starting Points of Instruction

These charts can be used to determine the starting points of instruction. The content of the charts is identical to the charts provided on pages ESS.145–186. Criterion referenced tests will help determine developmental levels in many areas. See Other Teacher Resources (ESS.240) for more information.

Domestic and Family Life

Domestic and Family Life	NAME _____ DATE _____		
The student will learn about family life.			
The student will:	has mastered	still learning	needs to learn
differentiate between immediate family members and others			
greet family members			
follow family rules that apply to self			
demonstrate increasing awareness of home environment by identifying areas of the home and personal belongings			
indicate understanding of concept of family; recognize siblings, parents and self as a unit			
identify belongings of other family members			
identify family members by role			
assume responsibility for self and belongings			
identify extended family members by name and role			
participate in family decision making			
identify how family roles and responsibilities change with age			
identify how own family is unique			
recognize need for family courtesy and family rules			
assume responsibility for own behaviour.			

Domestic and Family Life (cont'd)

Domestic and Family Life	NAME _____ DATE _____		
The student will perform cleaning tasks.			
The student will:	has mastered	still learning	needs to learn
recognize where toys and belongings are kept			
recognize that familiar household items have regular place			
recognize and cooperate with familiar household routines			
put toys away			
recognize household chores that need to be carried out			
assist with cleaning for a short period of time			
identify cleaning tasks that need to be done			
clean his or her own living space			
initiate cleaning tasks in the classroom			
use basic cleaning equipment with assistance			
assist with cleaning areas of dwelling			
independently undertake classroom cleaning chores			
use cleaning equipment and supplies with assistance			
care for own living and work space independently			
select cleaning material and equipment and use independently			
initiate household cleaning			
clean others' belongings and living space.			

Domestic and Family Life (cont'd)

Domestic and Family Life	NAME _____ DATE _____		
The student will plan and prepare meals.			
The student will:	has mastered	still learning	needs to learn
distinguish between edible and non-edible substances			
assist in selection of food items while shopping			
use fork and spoon appropriately; use knife for some cutting of semi-solids			
use condiments independently			
prepare simple snacks			
assist with chores related to food production			
assist in setting the table			
prepare uncooked breakfast			
clean up after snacks			
use kitchen utensils with safety			
participate in family food shopping			
know where food may be purchased			
use kitchen appliances with safety			
purchase food items			
prepare school lunch			
identify basic food order			
independently prepare table for meal			
independently clear table after meal			
plan meals for one day			
prepare a variety of simple meals.			

Domestic and Family Life (cont'd)

Domestic and Family Life	NAME _____ DATE _____		
The student will plan and prepare meals.			
The student will:	has mastered	still learning	needs to learn
demonstrate independence in grocery shopping			
make a simple shopping list			
plan meals for week			
interpret recipes			
prepare simple recipes.			

Domestic and Family Life (cont'd)

Domestic and Family Life	NAME _____ DATE _____		
The student will serve food.			
The student will:	has mastered	still learning	needs to learn
get own food items and utensils for snacks			
pour drink from a pitcher with assistance			
offer food to others			
get own lunch box, open containers, serve self			
carry tray/plate of food			
pour drinks for family members			
pass food to family members and guests			
take responsibility for serving food for entire meal.			

Domestic and Family Life (cont'd)

Domestic and Family Life	NAME _____ DATE _____		
The student will care for clothing.			
The student will:	has mastered	still learning	needs to learn
recognize storage places for clothing			
place clothing in proper storage area			
place soiled clothing in laundry area			
hang clothing in closet			
assist with sorting laundry			
assist with folding completed laundry			
launder personal items of clothing			
read clothing labels			
sort and fold laundry			
identify clothing in need of repair			
learn simple sewing techniques			
sew buttons and hems			
select and purchase clothing			
iron flat items			
pack for a trip			
launder and iron clothing independently			
identify and take appropriate clothing to dry cleaners.			

Domestic and Family Life (cont'd)

Domestic and Family Life	NAME _____ DATE _____		
The student will understand time.			
The student will:	has mastered	still learning	needs to learn
understand that different activities occur at different times of the day			
follow a picture schedule			
understand and use: today, this morning, tonight			
understand and use: yesterday, tomorrow, last week, next week, last year, next year			
respond to time signals at school			
respond to time cues (table setting and meal time, bathing and bedtime)			
begin to organize work and play time			
tell time on digital clock			
use analogue clock/watch with assistance			
tell time			
organize personal time			
schedule activities			
tell time from analogue clock/watch			
develop a personal schedule for school activities over longer periods of time.			

Domestic and Family Life (cont'd)

Domestic and Family Life	NAME _____ DATE _____		
The student will be aware of the community.			
The student will:	has mastered	still learning	needs to learn
recognize basic personnel associated with community services			
visit and use community services with adults			
identify areas adjacent to home neighbourhood			
identify community services			
identify personnel associated with community services			
identify and locate key locations in school community			
follow the rules of the neighbourhood			
identify community facilities			
distinguish between civic, provincial and federal government			
identify cultural differences in the community			
use community services with independence			
use community facilities with independence			
describe responsibilities of civic, provincial and federal government			
understand the importance of community rules			
understand rights as an individual			
be aware of international government			
be aware of the role of international government agencies.			

Domestic and Family Life	NAME _____ DATE _____		
The student will understand how to manage money.			
The student will:	has mastered	still learning	needs to learn
apply the term "money" to all coins and bills			
sort and match coins			
distinguish different coins			
label coins			
recognize that money is needed for purchases			
match coins required to make a purchase			
manage allowance			
understand equivalent values of coins			
recognize coins and bills in combination			
write money symbols			
identify $2, $5, $10, $20 dollar bills			
identify dollars and cents when written			
perform tasks for small monetary rewards			
understand people earn money by doing something for someone else			
manage bank account with assistance			
keep money in a safe place			
save money			
perform small jobs for money			
purchase items independently			
manage bank account with assistance			
understand value of money			
earn money regularly			
compare prices of similar materials			
understand borrowing, repayment			
budget and plan for expenditures			
manage a bank account.			

Personal and Social Development

Personal and Social Development	NAME _____ DATE _____		
The student will demonstrate knowledge of self.			
The student will:	has mastered	still learning	needs to learn
understand his or her own name			
know names of family members			
know gender			
state siblings' names			
state town or city			
state birthday.			

Personal and Social Development (cont'd)

Personal and Social Development	NAME _____ DATE _____		
The student will demonstrate social skills.			
The student will:	has mastered	still learning	needs to learn
maintain eye contact with care giver			
refrain from unattractive or rude gestures and noises in public			
attempt social contact with age peers			
display affection to age peers and adults			
maintain appropriate distance when speaking to others			
refrain from touching genital area of self or others			
respond to and initiate social greeting			
respect personal space of self and others			
say "excuse me" before interrupting			
apologize for wrong doing			
demonstrate socially acceptable behaviour			
laugh at appropriate points in a story or situation			
seek privacy for clothing adjustment			
look to others for social cues			
touch others only when socially acceptable			
use appropriate titles to address adults			
pause and allow others to speak			
respect privacy of others			
initiate and pursue conversation			
conclude conversation politely.			

Personal and Social Development (cont'd)

Personal and Social Development	NAME _____ DATE _____		
The student will demonstrate knowledge of interpersonal skills.			
The student will:	has mastered	still learning	needs to learn
approach peers without fear			
demonstrate affection for age peers			
become aware of inappropriate touching			
accept choices made by others			
respond to verbal and non-verbal communication			
resolve minor conflicts			
categorize familiar and unfamiliar people			
verbalize desire to be friends			
initiate friendly activity			
address other students and adults properly			
identify person to whom need can be expressed			
recognize roles of familiar people			
distinguish between needs and wants			
communicate in a number of ways			
get attention of listener(s) before speaking			
seek assistance when needed			
intervene in unsafe or conflict situation			
modify behaviour as required			
recognize mood changes in others			
ask questions to get information			
communicate feelings in a variety of ways			
make choices between activities			
respond appropriately to familiar and unfamiliar people with respect to age and role			
contribute to classroom decision making			
resolve conflict with peers without assistance.			

Personal and Social Development (cont'd)

Personal and Social Development	NAME _____ DATE _____		
The student will dress and undress independently.			
The student will:	has mastered	still learning	needs to learn
cooperate while being dressed/undressed			
assist with dressing/undressing			
put on/remove sleeved garment with assistance			
put on/remove legged garment with assistance			
put on/remove socks			
remove shoes independently			
put shoes on correct foot			
put on/remove sweaters, T-shirts			
manage zippers, snap and velcro fasteners			
dress/undress independently			
dress appropriately for activity			
select appropriate clothing for weather			
tie bow knot			
manage back fastener			
differentiate soiled clothing from clean, pressed from wrinkled			
change clothing when soiled			
select clothing appropriate to occasion			
be aware of proper clothing fit			
clean shoes			
be aware of basic colour and fashion coordination			
select some of own wardrobe.			

Personal and Social Development (cont'd)

Personal and Social Development	NAME _____ DATE _____		
The student will demonstrate fastening and unfastening.			
The student will:	has mastered	still learning	needs to learn
unbutton single large buttons			
zip/unzip zipper without separating or inserting shank			
snap or hook clothing in front			
unzip front zipper on jacket, separating shank			
button series of medium buttons on front of clothing			
unbuckle shoe or belt			
buckle up shoe strap or belt			
zip up jacket zipper inserting shank			
thread lace through shoe eyelet			
untie knot on apron or shoe lace			
tie an overhand knot (first knot of shoe tying)			
tie bow knot of shoe lace			
tie hood strings on coat			
button back buttons/snap back snaps			
hook/unhook bra fastener			
tie bow knot on apron behind back.			

Personal and Social Development (cont'd)

Personal and Social Development	NAME _____ DATE _____		
The student will use the bathroom independently.			
The student will:	has mastered	still learning	needs to learn
indicate he or she is soiled			
communicate need to use toilet			
use potty independently			
control bowel			
communicate need to urinate; need for bowel movement			
use toilet independently			
urinate independently			
stay dry through the night			
complete bowel movement independently			
care for all toiletting needs independently			
use facilities in appropriate manner			
wipe self independently after bowel movement			
flush toilet consistently following use			
recognize and use appropriate restroom			
be socially acceptable in washroom use and transfer learning to new situations			
be aware of health and personal hygiene safety issues in relation to use of public facilities.			

Personal and Social Development (cont'd)

Personal and Social Development	NAME _____ DATE _____		
The student will bathe independently.			
The student will:	has mastered	still learning	needs to learn
cooperate with care giver when washing and drying hands			
wash and dry hands with limited assistance			
wash and dry hands independently			
wash and dry face with assistance			
turn water taps on and off independently			
adjust tap to achieve desired water temperature and pressure			
wash and dry face independently			
bathe with assistance, demonstrating awareness of safety issues of water temperature and depth			
bathe without assistance			
draw water independently			
shampoo hair.			

Personal and Social Development (cont'd)

Personal and Social Development	NAME _____ DATE _____		
The student will demonstrate establishment and maintenance of relationships.			
The student will:	has mastered	still learning	needs to learn
interact positively with peers			
begin to develop behaviour associated with friendship			
want to be friends with many peers			
begin to recognize behaviours characteristic of friendship			
begin to recognize behaviours not characteristic of friendship			
establish friendships with family, classmates and school staff			
learn about human sexuality			
verbalize liking of peers			
understand dating behaviour			
recognize the responsibility of friendship			
develop longer lasting relationships with members of both sexes			
understand human sexuality			
develop long-term friendships at school and in the neighbourhood			
understand dating behaviour			
demonstrate appropriate sexual behaviour			
use correct language when describing sexual behaviour.			

Personal and Social Development (cont'd)

Personal and Social Development	NAME _____ DATE _____		
The student will groom self independently.			
The student will:	has mastered	still learning	needs to learn
blow nose upon request			
wipe nose when asked			
brush teeth with assistance			
comb hair			
brush teeth independently			
brush hair with assistance			
wipe nose voluntarily			
brush hair independently			
practice hygiene associated with coughing and sneezing			
clean nails			
use deodorant			
clean glasses			
manage hygiene associated with menstruation			
purchase personal care items			
use cosmetics and grooming aids			
maintain cleanliness of comb and brush			
manage hair care; washing and styling			
care for personal needs			
shave.			

Personal and Social Development (cont'd)

Personal and Social Development	NAME _____ DATE _____		
The student will eat independently.			
The student will:	has mastered	still learning	needs to learn
drink from cup with assistance			
drink from cup independently			
use spoon to feed self			
suck from straw			
manage cups and glasses with one hand independently			
chew food properly			
use fork and spoon appropriately; use knife for some cutting of semi-solids			
communicate need to eat			
broaden variety of preferred foods			
associate food items with an order for eating			
associate foods and sources			
control food consumption			
identify foods by label			
select appropriate food for meal			
classify all foods			
choose a balanced diet			
recognize reasons for controlling consumption.			

Personal and Social Development (cont'd)

Personal and Social Development	NAME _____ DATE _____		
The student will demonstrate independence in personal safety.			
The student will:	has mastered	still learning	needs to learn
demonstrate safe use of play equipment			
put playthings away			
cooperate during activities promoting increased safety; e.g., accept use of seat belts, hold hands while crossing street			
respond to commands such as "stop, no, don't touch, danger"			
use small objects with care and safety			
demonstrate knowledge of safety rules			
respond to supervision in play areas			
warn others of danger			
practise bicycle safety			
know the dangers of not following safety rules			
demonstrate safe use of recreational equipment			
practice fire safety; follow routines of fire drills			
use community recreational facilities safely			
recognize where to seek help when hurt			
organize work and play space to maximize safety			
demonstrate safe use of equipment for work and play			
determine unsafe features of work and play equipment			
follow directions given in emergencies			
independently use equipment			
demonstrate knowledge of first aid procedures			
know how to access emergency services.			

Personal and Social Development (cont'd)

Personal and Social Development	NAME _____ DATE _____		
The student will demonstrate ability to communicate by telephone.			
The student will:	has mastered	still learning	needs to learn
play with the phone			
imitate phone conversation			
answer the phone with a clear "hello"			
use touch tone and dial phones			
respond appropriately if call is for someone else			
notify person wanted			
carry on meaningful conversation if call is personal			
use different responses for different types of calls			
make local calls			
use pay phone			
write messages to be conveyed if call for others			
know how to use an answering machine			
take and convey messages verbally			
use yellow pages			
use talking yellow pages			
make long distance calls			
ask for wanted party properly			
end calls politely			
hang up if caller refuses to identify self or uses obscene language			
use directory assistance			
locate number in phone book			
access fax machine technology.			

Personal and Social Development (cont'd)

Personal and Social Development	NAME _____ DATE _____		
The student will be knowledgeable about the effects of substance abuse.			
The student will:	has mastered	still learning	needs to learn
understand that some substances can be harmful			
identify the symbols for hazardous household products			
learn the definition of a drug and understand that many commonly used substances can be considered drugs			
understand that drugs can be helpful and harmful			
distinguish between prescription and non-prescription drugs			
demonstrate knowledge about the effects of caffeine, tobacco and alcohol			
differentiate between the use and abuse of drugs			
identify types of drugs related to drug use and abuse			
understand the effects of use and abuse of tobacco, alcohol and other drugs			
know about the consequences of tobacco, alcohol and other drug abuse			
understand the factors that may influence drug use/abuse			
be able to assess the risks to one's health and/or well-being related to the use/abuse of alcohol and other drugs			
understand key issues related to impairment and driving			
be aware of services available for the treatment of substance abuse.			

Personal and Social Development (cont'd)

Personal and Social Development	NAME _____ DATE _____		
The student will use a computer independently.			
The student will:	has mastered	still learning	needs to learn
turn the computer on and off			
handle disks or other storage media that the computer uses			
use a printer; turn it on and off and load it with paper			
locate keys on keyboard using space bar, return, shift keys, cursor movement keys and escape key			
recognize that the keyboard has a left and right hand side and that specific fingers are to be used for specific keys			
perform simple trouble-shooting routines			
keyboard, using proper techniques			
use other hardware peripherals such as a mouse, modem, laboratory probes, MIDI keyboards, CD-ROM.			

Leisure/Recreation/Arts

Leisure/Recreation/Arts	NAME _____ DATE _____		
The student will participate in games.			
The student will:	has mastered	still learning	needs to learn
participate in games led by others			
understand taking turns			
understand sharing equipment			
imitate play activity of others			
engage in symbolic play			
attend to task			
respond to direction from instructor			
use courtesies associated with games			
verbalize rules of games			
participate in games with low level of organization (indoor/outdoor with decreasing amount of adult direction)			
increase repertoire of games			
initiate game activity			
participate in intramural activity			
participate in organized races			
play simple games with others			
participate in community led game activity			
generalize skills to other games			
show others how to play game			
practise skills required for game			
demonstrate sportsmanship in game activity			
understand game safety			
generalize game safety to other games.			

Leisure/Recreation/Arts (cont'd)

Leisure/Recreation/Arts	NAME _____ DATE _____		
The student will demonstrate knowledge of games.			
The student will:	has mastered	still learning	needs to learn
assemble interlocking puzzles			
put away games when finished			
play card games requiring matching and sorting (simple classification)			
share items			
play simple board games			
play with electronic games			
take turns in games			
behave appropriately while waiting for turn			
complete simple puzzles			
play simple card games			
understand purpose of rules for games			
play board games requiring participant to take turns and follow complex rules			
play card games with more complex playing procedures and more complex rules			
play educational games			
cooperate as a team player			
play card games requiring memory skills and strategic play			
understand leader/follower positions in games			
play board games required playing strategies			
complete word puzzles.			

Leisure/Recreation/Arts (cont'd)

Leisure/Recreation/Arts	NAME _____ DATE _____		
The student will use computer games.			
The student will:	has mastered	still learning	needs to learn
know how to activate and deactivate game			
play computer games with large display and manipulated by large muscle movement			
use hand held electronic games			
have favourite games			
play games with lower levels of complexity			
share games			
know the vocabulary associated with computer games			
attempt variety of games			
attempt more complex games			
engage in competition with others playing same game.			

Leisure/Recreation/Arts (cont'd)

Leisure/Recreation/Arts	NAME _____ DATE _____		
The student will participate in recreational activity.			
The student will:	has mastered	still learning	needs to learn
play with toys			
imitate play activity of others			
attend to single activity for short periods of time			
listen to radio and tapes			
watch television			
attend movies with others			
attend to play activity for longer periods of time			
participate in community recreational activity with assistance			
indicate preference for recreational activity			
have preferences for specific media forms; e.g., television, comics, radio, pictures			
make choices among available movies, videos			
participate in community team sports activity (hockey, ball, soccer)			
participate in track meet activities			
participate in individual sports (golf, bowling, biking, roller blading)			
demonstrate appropriate spectator skills			
develop preferences for media themes (adventure, romance, western, science fiction).			
go to movies with peers			

Leisure/Recreation/Arts (cont'd)

Leisure/Recreation/Arts	NAME _____ DATE _____		
The student will participate in recreational activity.			
The student will:	has mastered	still learning	needs to learn
specify preference about recreational activity			
broaden the range of recreational activity in which he or she participates			
develop preferences for particular actors			
initiate participation in recreational activity			
increase independence in participation			
broaden recreational activity			
develop preferences for a wider range of visual arts.			

Leisure/Recreation/Arts (cont'd)

Leisure/Recreation/Arts	NAME _____ DATE _____		
The student will be physically fit.			
The student will:	has mastered	still learning	needs to learn
require less support in movement activities			
climb play apparatus			
ride a tricycle			
participate in group physical activity			
participate in individual physical activity			
play ball games requiring large muscle activity			
become involved in intramural activity			
complete simple gymnastic movements			
participate in games requiring small muscle control (ball throwing and catching, marbles)			
understand importance of fitness; become interested in fitness activity			
help develop group fitness plan			
broaden range of activities; summer sports, winter sports and individual pursuits			
demonstrate awareness of impact of diet on physical fitness			
develop individual fitness plan			
maintain physical fitness routine.			

Leisure/Recreation/Arts (cont'd)

Leisure/Recreation/Arts	NAME _____ DATE _____		
The student will express himself or herself through drama.			
The student will:	has mastered	still learning	needs to learn
imitate simple actions			
imitate simple sounds			
participate in dress-up activities			
participate in symbolic play			
imitate the actions of familiar animals			
imitate the actions of familiar people			
demonstrate feelings			
role play familiar routines			
participate in group activities			
demonstrate actions associated with an activity			
repeat parts of stories and verses			
portray characters from a story or play			
demonstrate a particular role from a story or play			
demonstrate emotions of characters			
participate in impromptu drama			
take part in dramatic productions			
demonstrate feelings and emotions.			

Leisure/Recreation/Arts (cont'd)

Leisure/Recreation/Arts	NAME _____ DATE _____		
The student will develop appreciation of music.			
The student will:	has mastered	still learning	needs to learn
respond to music by facial expression, clapping, playing simple instruments			
listen to music for enjoyment			
participate in musical games			
imitate rhythmic movements			
operate cassette recorders			
play more complex musical instruments			
participate in action songs			
dance			
move to music			
understand more complex rhythm patterns			
request partner to dance			
perform contemporary dance forms			
listen to music as a source of enjoyment.			

Leisure/Recreation/Arts (cont'd)

Leisure/Recreation/Arts	NAME _____ DATE _____		
The student will use the public library.			
The student will:	has mastered	still learning	needs to learn
accompany others to library			
select books with assistance			
attend story time for short period			
choose stories			
listen attentively to story			
select familiar books for reading			
develop favourite categories of books			
select books from a range of topics			
select chapter books			
know who the library staff are			
select tapes, CDs and videos in library			
use public library independently			
begin to select books about areas of personal interest			
select library material other than books; e.g., magazine or newspaper articles			
understand responsibility for library materials			
understand fines for overdue/lost material			
know about and use other libraries.			

Leisure/Recreation/Arts (cont'd)

Leisure/Recreation/Arts	NAME _____ DATE _____		
The student will participate in arts and crafts.			
The student will:	has mastered	still learning	needs to learn
explore a variety of media such as paints, markers, chalk or fingerpaint			
explore gluing with a variety of collage materials			
draw simple pictures with representation; e.g., face, house, car, tree			
imitate simple crafts using cutting and gluing			
use craft materials creatively or to copy a model			
choose from several projects to make a craft			
follow several simple illustrated steps to complete a craft			
complete a project over time			
develop interest in one or more arts or crafts activities which can be done independently as an enjoyable leisure activity			
participate in arts and crafts activities sponsored by community organizations.			

Citizenship and Community Involvement

Citizenship and Community	NAME _____ DATE _____		
The student will know how to conduct social interactions in the community.			
The student will:	has mastered	still learning	needs to learn
express needs			
begin to recognize roles of others in community			
ask others for help when needed			
communicate needs more clearly			
communicate needs to appropriate person			
recognize role of service providers			
use appropriate language to ask for services (from clerks, food servers)			
discriminate between service providers and others			
discriminate between friends and others			
begin to settle disputes in acceptable ways			
settle disputes and disagreements in an acceptable manner			
offer to help others			
conduct social interactions in community with confidence			
recognize cultural differences in community.			

Citizenship and Community Involvement (cont'd)

Citizenship and Community	NAME _____ DATE _____		
The student will demonstrate safety in the community.			
The student will:	has mastered	still learning	needs to learn
obey "WALK, WAIT, DON'T WALK" signals			
obey "STOP" signal			
know meaning of "block parent"			
recognize warning sign at railway crossing			
respond to supervision			
identify safe places to play			
seek help when needed			
obey buckle up sign or command			
demonstrate safe use of play equipment, objects and materials			
recognize and understand warning and safety signs; e.g., poison, explosives, flammable, fire exit, keep out, exit only			
recognize and respond appropriately to warning signals; e.g., fire alarm, sirens, smoke alarms			
recognize emergency exits			
expand knowledge of safety associated with facilities (swimming pool, skating rink)			
know how to use 911			
care for minor injuries			
manage personal medication			
know how to set off fire alarm			
demonstrate safe riding practices.			

Citizenship and Community Involvement (cont'd)

Citizenship and Community	NAME _____ DATE _____		
The student will demonstrate safety in the community.			
The student will:	has mastered	still learning	needs to learn
know how to set off fire alarm			
demonstrate safe riding practices			
know sources of help in emergency situations (block parent, police, bus driver, neighbours)			
develop a home plan for fire safety			
recognize consequences of not obeying safety rules			
recognize dangers to personal safety			
know first aid procedures			
understand antidotes for hazardous products			
alert others of danger			
recognize importance of keeping equipment in good operating order			
know how to travel safely on public transportation			
teach first aid procedures to others			
understand first aid associated with hazardous products			
recognize dangerous goods routes.			

Citizenship and Community Involvement (cont'd)

Citizenship and Community	NAME _____ DATE _____		
The student will use services available in the community.			
The student will:	has mastered	still learning	needs to learn
accompany responsible adults to service outlets in the community			
visit health clinic with responsible adult			
attend story time at public library			
accompany others on public transportation			
deposit letter to be mailed in mail box			
purchase stamps at post office outlet			
mail letter at post office			
meet with school nurse and other medical professionals at school			
associate services available with location			
wait in line for service			
sign out selections at public library			
associate staff role with community service			
ask for help from community service personnel			
use designated change rooms in public athletic facilities			
follow current events in community paper			
use public library independently			
use change rooms independently			
distinguish between recreational activity and services related to personal health and welfare.			

Citizenship and Community Involvement (cont'd)

Citizenship and Community	NAME _____ DATE _____		
The student will use services available in the community.			
The student will:	has mastered	still learning	needs to learn
locate and use banking services			
mail parcels at post office outlet			
know from whom to seek information about the community			
use community services independently			
evaluate services provided			
use delivery service of post office			
consult doctor when necessary			
establish medical check-up routine.			

Citizenship and Community Involvement (cont'd)

Citizenship and Community	NAME _____ DATE _____		
The student will know how to travel in the community.			
The student will:	has mastered	still learning	needs to learn
differentiate between vehicles			
move about house, yard and school yard			
practice safety rules			
demonstrate understanding of directional terms — right, left, forward, back			
know name, address, phone number; how to use emergency services			
respond to travel commands; e.g., no standing			
recognize familiar destinations			
know safety rules associated with travel			
travel throughout the community with increasing independence			
relate mode of transpiration to planned journey			
recognize payment required for some forms of transportation			
operate traffic safety equipment			
identify own school bus			
cross street independently			
know when to refuse rides			
understand safety habits associated with riding a bike			
follow travel schedule; be at pick-up points on time.			

Citizenship and Community Involvement (cont'd)

Citizenship and Community	NAME _____ DATE _____		
The student will know how to travel in the community.			
The student will:	has mastered	still learning	needs to learn
respond correctly to traffic signals			
know how to seek assistance while travelling			
know route between home, school, familiar places			
travel independently throughout the community			
participate in driver training program			
use public transportation system			
understand the safety habits associated with driving a vehicle.			

Citizenship and Community Involvement (cont'd)

Citizenship and Community	NAME _____ DATE _____		
The student will know how to shop for personal needs.			
The student will:	has mastered	still learning	needs to learn
behave in an appropriate manner when in stores			
be aware of necessity for payment			
use facilities in proper manner			
know where needed items can be purchased within the community; within a large store			
recognize directional labels in stores			
take cue from others (lining up, standing quietly)			
select item and enact payment (item and amount are prearranged)			
request specific items in store			
locate specific aisles in stores			
complete a transaction independently			
request assistance from clerk, if necessary			
list possible purchases and prioritize items.			

Citizenship and Community Involvement (cont'd)

Citizenship and Community	NAME _____ DATE _____		
The student will know how to order food in a restaurant.			
The student will:	has mastered	still learning	needs to learn
indicate food choices			
stand in line with others			
deposit used food containers in supplied garbage bins			
know different types of restaurants			
verbalize food choices			
select and order food choices independently			
understand payment required			
select and obtain food items from vending machine			
make alternate choices if preference not available			
wait in line and follow line independently			
accompany peers to fast food outlet			
select, order, pay for fast food			
select broader range of food outlets to visit			
evaluate outlets			
have food preferences			
order a complete meal in restaurant.			

Citizenship and Community Involvement (cont'd)

Citizenship and Community	NAME _____ DATE _____		
The student will demonstrate environmental awareness.			
The student will:	has mastered	still learning	needs to learn
recognize plants and animals in the community			
dispose of litter in proper container			
develop understanding of weather and climate			
develop understanding of effect of weather and climate on safety and planned activities			
recognize natural land forms			
identify and dispose of litter			
participate in school recycling projects			
specify use for leftovers			
recognize a variety of litter containers			
identify excessive use of energy (lights left on, equipment left running)			
understand overuse threatens plants, animals and energy sources			
understand people have control over the use of energy sources			
generalize understanding of conservation			
practise conservation in personal life.			

Career Development

Career Development	NAME _____ DATE _____		
The student will identify and demonstrate selected competencies needed by the world of work.			
The student will:	has mastered	still learning	needs to learn
complete simple tasks			
carry out assigned classroom or in-school tasks			
complete task within a given time frame			
adapt to requirements of new tasks			
demonstrate a positive attitude about tasks			
be consistent in the performance of routine tasks			
accept direction			
develop the habit of punctuality			
carry out assigned in-school tasks			
recognize the relationship between work and earnings			
approach new tasks willingly			
consider tools and equipment needed for tasks			
self-evaluate selected task performances			
maintain specified levels of quality in assigned tasks			
observe safety rules			
maintain satisfactory personal appearance			
visit potential work sites			
identify appropriate work-site behaviours.			

Career Development (cont'd)

Career Development	NAME _____ DATE _____		
The student will identify and demonstrate selected competencies needed by the world of work.			
The student will:	has mastered	still learning	needs to learn
learn vocabulary of a variety of occupations			
role play occupation interviews			
complete an off-campus experience placement			
demonstrate appropriate interpersonal skills in work environments			
develop a personal resume			
complete applications for selected occupations			
complete a real or simulated occupation interview			
use the telephone in occupation search			
read and interpret help wanted advertisements			
evaluate and apply for occupational benefits			
become aware of legal rights of employees			
understand meaning of income tax			
complete income tax return with assistance			
read and comprehend payroll deduction statements.			

Career Development (cont'd)

Career Development	NAME _____ DATE _____		
The student will identify alternative career paths and plan for a career.			
The student will:	has mastered	still learning	needs to learn
approach simple tasks with direction			
comply with simple direction			
be aware of family members work			
recognize that different occupations require different skills			
describe occupations of family members			
describe competencies required in particular occupations			
identify jobs of interest			
obtain information about jobs of interest; e.g., entry-level requirements, wage rates			
identify own interests and aptitudes			
recognize own strengths and limitations in relation to occupation requirements			
identify a job of interest that is commensurate with interest and abilities			
seek work experience to support occupation interest			
perform volunteer tasks			
develop a career portfolio containing interests, aptitudes and evidence of career exploration.			

Career Development (cont'd)

Career Development	NAME _____ DATE _____		
The student will learn to manage time.			
The student will:	has mastered	still learning	needs to learn
indicate familiarity with routines			
return to classroom quickly after recess and lunch breaks			
use words associated with time of day (morning, night, afternoon)			
respond to time signals at school			
plan free time activity			
sequence steps in simple routines			
know importance of being on time			
tell time using digital clock			
use analogue clock/watch with assistance			
complete tasks in assigned time			
help develop classroom schedule			
attend to tasks			
manage requests that result in time conflicts			
tell time from analogue clock/watch			
prepare personal time schedule			
budget time for activities			
complete time sheet.			

Section V
Other Teaching Resources

This listing is not to be construed as an explicit or implicit departmental approval for use of the resources listed. These titles are provided as a service only to assist school authorities to identify resources that contain potentially useful ideas. The responsibility to evaluate these resources prior to selection rests with the user, in accordance with any existing local policy.

Resources listed in this section can be ordered from the publishers. See page ESS.251 for addresses.

The Big book of scissor skills (1992) by Patricia Ling. Greensboro, NC: Carson-Dellosa Publishing Company, Inc. Order No. CD–0958.

This book provides instructions and practice for scissor readiness, pre-cutting and cutting skills. It also includes safety tips and awards.

Instructions are provided for using the large, cheerful patterns in this book to give students experience tearing, cutting and gluing. In addition, the patterns may be used to decorate bulletin boards, send notes home, add interest to flyers and worksheets, label lockers and desks and create personalized books and awards. Reproducible materials.

The Bridge reading kit (1983) by Alison Dewsbury, Jennifer Jennings & David Boyle. Toronto, ON: The Ontario Institute for Studies in Education. Distributed by Scholarly Book Services, Inc. ISBN 0–7744–0255–5.

This picture-based reading program is designed to form a bridge between the understanding of gestures, their transformation into logographs and symbols to the world of print for beginning readers. The kit contains a teachers handbook, 50 graduated readers, a complete set of pictures and two activity books. The kit is useful in teaching students prereading skills and provides a sight vocabulary of about 150 words. It also encourages students to begin to manipulate language and build their own stories. This kit can also help students understand the abstract formation of language in a black and white concrete form that they can manipulate.

Brigance™ inventory of early development (Revised) (1991) by Albert Brigance. Curriculum Associates. ISBN 1–55915–223–0.

The *Inventory of early development* (IED) revised, includes over 200 developmental, readiness and early academic skills assessments in preambulatory, gross and fine motor, self-help, speech and language, general knowledge and comprehension, social and emotional development, readiness, basic reading, manuscript writing and basic mathematics. New features of the

revised edition include a social and emotional skill section, a section on comprehensive skill sequences, updated references and a testing accessories kit (blocks, scissors and manipulatives).

Brigance™ readiness: strategies and practice (1st edition) (1985) by Albert Brigance. Curriculum Associates.
ISBN 0–89187–434–8.

This resource correlates with the following Brigance assessment materials:

- Comprehensive Inventory of Basic Skills
- Inventory of Basic Skills
- Inventory of Early Development.

More than 400 developmentally appropriate skills are introduced, taught and reinforced with this teaching resource. Strategies for effective teaching are incorporated in every skill area. Each skill section includes an objective, a rationale, a skill sequence, teaching recommendations and indications of possible learning difficulties. A wide variety of multimodality practice activities offers many choices to meet individual needs. Skill areas taught are general knowledge and comprehension, gross-motor skills, fine-motor skills, self-help skills, visual-motor/visual discrimination skills, general readiness skills and early reading, writing and math skills.

The Carolina curriculum for infants and toddlers with special needs (2nd edition) (1990) by Nancy Johnson-Martin, M. A. Attermeier & B. Hacker. Baltimore, MD: Paul H. Brookes Publishing Co.
ISBN 1–55766–032–8.

This guide provides curriculum suggestions for children between the ages of two and five who are considered at risk for developmental delay or who exhibit special needs. Five domains of development (gross motor, fine motor, cognitive, language, social/self help) are delineated into 25 subdomains. Detailed teaching and assessment techniques are provided. Group activity suggestions are provided for each skill. A 28-page Assessment Log, which can be purchased separately, provides a recording system to chart a student's progress.

Community-based curriculum: instructional strategies for students with severe handicaps (1989) by Mary A. Falvey. Baltimore, MD: Paul H. Brookes Publishing Co.
ISBN 1–55766–023–9.

This textbook offers teachers, administrators, therapists, counsellors and others various clearly presented updated strategies and materials for community-based instruction. It includes information on improving curriculum, establishing priorities, focusing on instructional issues and determining the how, where and why of a particular activity.

Creative play activities for children with disabilities: a resource book for teachers and parents (1989) by Lisa Rappaport Morris & Linda Schultz. Champaign, IL: Human Kinetics Books.
ISBN 0–87322–933–9.

This book has been designed to promote the development of young children with disabilities through play and games. It contains hundreds of activities, games and directions for making simple homemade toys for students with mild to severe disabilities ranging in age from birth to eight years. Each chapter focuses on a particular "world" or activity theme, such as sensory, motor, water and outdoor play. Each activity lists detailed directions, the items needed, the activity benefits and possible adaptations for different disabilities.

The Creature games (1993) by Mary S. Wilson. Winooski, VT: Laureate Learning Systems, Inc.

Creature games are computer programs designed for individuals with severe/profound disabilities, including those functioning below nine months of age. Users activate the Apple, MacIntosh or IBM programs with a keyboard, touch screen, single switch or a mouse.

Creature capers, *Creature features*, *Creature antics* and *Creature cartoons* are designed to introduce and reinforce cause-and-effect, turn-taking and the use of a single switch.

Creature chorus offers six games for single switch and six for touch screen that introduce the concepts of cause-and-effect, switch use, visual tracking, discrete pointing and turn-taking.

Creature magic has four games that introduce important language and cognitive concepts.

Developing health skills: 153 activities for teaching non-readers (1987) by David A. Birch. J. Weston Walch, Publisher; Mind Resources.
ISBN 0–8251–1214–1.

This resource is designed to assist teachers in developing quality health education programs to enable students to develop the knowledge, skills, attitudes and independence to maintain a healthy lifestyle. Seven skill areas are addressed: understanding the body, self-care, fitness and nutrition, mental health, family life and sexuality, drug and alcohol decisions, safety and injury control. This resource could be used as a supplement for home economics, science, physical education and portions of the elementary curriculum. Skill inventories, general teaching suggestions, actual teaching activities, and strategies for involving parents are provided. This teaching resource is for use with students with little or no reading ability for Grades 6 and up and includes 119 reproducible teaching pictures.

Donald's fire drill (1991). Walt Disney Educational Productions. Available from Magic Lantern Communications Ltd.

In this videotape, two children match wits and fire safety knowledge with Donald Duck on his comical quiz show "Donald's Fire Drill." Viewers learn safety tips and techniques that will enable them to act safely during a fire at home.

Early communication skills (1991) by Charlotte Lynch & Julia Cooper. England: Winslow Press. Distributed by Monarch Books of Canada. ISBN 0–86388–096–7.

Early communication skills is a resource for professionals looking for new educational and therapy ideas in their work with preschool children and their parents. Some sections will be of particular interest to those working with children who are hard of hearing – an area in which both authors specialize.

More than 100 communication-based activities provide a practical framework on which to plan programs of work and therapy. All ideas are practical and were developed by the authors from their joint working experience. Based on 100 copyright-free activity sheets designed to be handed to parents for work in the home and to other key workers to encourage continuity and teamwork, the loose-leaf format has been developed to reflect the highly practical content.

Educating children with multiple disabilities: a transdisciplinary approach (1991) by Fred P. Orelove & Dick Sobsey. Baltimore, MD: Paul H. Brookes Publishing Co. ISBN 1–55766–077–8.

This text uses the transdisciplinary team model in a functional array of assessment, intervention and evaluation techniques. It includes materials for enhancing the functional abilities of students with multiple disabilities, effectively integrating health care and education programs, communication alternatives and personal care and grooming.

Functional living skills for moderately and severely handicapped individuals (1985) by Paul Wehman, Adelle Rezaglia & Paul Bates. Austin, TX: Pro-ed. Kitchener, ON: Mind Resources Inc. Product No. 1289.

This book describes how functional and age appropriate programs can be implemented for adolescents and adults. It addresses what skills should be taught, why they are important and how they can best be taught. Areas of focus include domestic living, community mobility, social interaction training, leisure skill instruction, vocational training and advocacy. Each chapter provides instructional guidelines.

How to get along on the job (1985) by Terry Leonard. J. Weston Walch. ISBN 0–8251–1579–5.

A self-directing program to help young people develop the acceptable occupation attitudes and behaviours needed when they enter the world of work. The program contains a cassette, 45 blackline masters and a teacher's guide. It covers topics like how to get along with supervisors and co-workers, anticipate and solve on-the-job problems. This is suitable for individual or group instruction and is written at a Grade 2–3 reading level.

I Can physical education: sport, leisure and recreation (1979) by Janet A. Wessel. Austin, TX: Pro-ed. (Team Sports: Product No. 3741; Outdoor Activities: Product No. 3770; Dance and Individual Sports: Product No. 3750; Backyard/Neighbourhood Activities: Product No. 3760. Complete four-unit kit: Product No. 3740.)

This adaptive physical education program is an objective-based system for individualizing instruction. There are four units: Team Sports, Dance and Individual Sports, Outdoor Activities and Backyard/ Neighbourhood Activities. The program is designed to help students develop the basic physical skills necessary for functional participation in play and leisure activities. Can be used with children, adolescents and adults with special needs.

The IEP companion (1992) by Carolyn C. Wilson, Janet R. Lanza & Jeannie S. Evans. East Moline, IL: Linguisystems. ISBN 1–55999–222–0.

This resource includes individual and classroom objectives for:

- early language
- vocabulary and semantics
- syntax and morphology
- pragmatics and social language
- thinking and problem solving
- listening for information
- articulation and phonology
- voice and fluency.

This resource can be used to structure therapy and create lesson plans.

I'm no fool series (1992) by Walt Disney Productions. Langley, BC: Magic Lantern Productions.

Disney's most popular safety video series, with awards from the National Safety Council, American Automobile Association and International Festival of Red Cross and Health Films. Jiminy Cricket is the safety instructor as he gives life-saving lessons on: developing personal skills, staying safe in traffic, taking playtime precautions, being aware of hazards and developing responsibility for one's own behaviour.

I'm no fool in a car — A story with practical safety facts. Two young earthlings offer an alien visitor expert advice on staying safe in and around automobiles. (15 minutes, live action)

I'm no fool in an emergency — When a policeman sustains a head injury in pursuit of their extraterrestrial friend Screech, Ben watches over the unconscious officer while Lisa and Screech head for a phone to dial 911. (13 minutes, live action)

I'm no fool in unsafe places — Special effects and Disney animation combine to deliver essential safety information about swimming pools, street corners and railroad crossings. (15 minutes, live action)

I'm no fool with safety at school — With the advice of Jiminy Cricket, Pinocchio goes to an elementary school to learn about safety on the playground and in the classroom from his classmates and teacher. (13 minutes, live action)

Keeping house. Windsor, ON: Attainment Co.

An introductory housekeeping and domestic skills program. Teaches key routines in sequence, like clearing the table, putting leftovers away and washing dishes.

Picture set — Teaches domestic skills step-by-step by following picture sequences. Simply arrange activities in order, place them in a pocketbook or on display pages and perform them at the site where they occur. Includes routine cards, pocketbook, display pages and illustrated step pages.

Curriculum — Sets lesson plans and shows how to use materials. Training strategies are easy to follow with clear directions and task analyses. Has supportive materials, such as home contact and questionnaire forms, goal and assessment sheets and progress reports. Includes instructor's guide and resource file.

Video — Mary and friends plan a party but find they have a lot of preparing to do first. They have to clean the house, buy party supplies and get dressed up. Domestic skills performed correspond to the curriculum. Motivational video blends entertainment with instruction.

The Language of toys (1988) by Sue Schwartz & Joan E. Heller Miller. Downsview, ON: Monarch Books of Canada (Woodbine House, U.S.A.). ISBN 0–933149–08–5.

This book explains to parents and teachers how to use everyday toys, both manufactured and homemade, to create activities that stimulate special needs children to develop and improve their language skills.

Learn to cut (1987) by Robin R. Wolfe. Tucson, AZ: Communication Skill Builders. ISBN 0–88450–994–X.

This developmentally sequenced program teaches cutting skills and shape recognition simultaneously. In Part 1, eight types of cutting skills are presented in a hierarchy of steps. For each task, IPP objectives are stated and pre- and post-tests worksheets and recording sheets are given. Part 2 contains patterns for 61 individual art projects, including 25 holiday cutting activities. All materials are reproducible.

Lee, the rabbit with epilepsy (1989) by Deborah M. Moss. Downsview, ON: Monarch Books of Canada. ISBN 0–933149–32–8.

This book tells the story of Lee and her family as they face the challenges of epilepsy. From Lee's first seizure and initial visits to the doctor, through her diagnosis and treatment, the book explains epilepsy directly to children — not only to the child who has epilepsy, but to brothers, sisters and friends as well. The story of Lee reassures the entire family with a positive yet realistic look at epilepsy.

Life centered career education: a competency based approach (4th edition) (1993) by Donn E. Brolin (ed.). Reston, VA: The Council for Exceptional Children. ISBN 0–86586–241–9.

This text provides the framework for building a comprehensive and systematic effort for infusing LCCE skills into academic subjects. The guide contains the most current set of transitional objectives and units for the 97 LCCE subcompetencies. Includes the Competency Rating Scale and IPP

Forms with transition components. This updated 1993 version keeps all the familiar components of earlier editions but also includes essential references to the Complete LCCE Package, the new LCCE Video-Training Package and transition requirements for the IPP.

Life skills activities for special children (1992) by Darlene Mannix. The Center for Applied Research in Education, Business Information and Publishing Division. ISBN 0–87628–547–7.

This resource provides a collection of practical, easy-to-use, open-ended activities to assist in teaching life skills to students with special needs. Skills required for independent living are addressed including: basic survival skills, personal independence and getting along with others. Materials could be used as a social studies unit for younger students, portions could supplement current events for older students, oral discussion or thinking time, social skills training, as well as specific academic needs such as vocabulary enrichment or reading. Over 100 ready-to-use lessons and reproducible blackline master worksheets are provided.

Life skill games series I. Windsor, ON: Attainment Co.

Eight games add to the life skills curriculum and can be used at school or home. Every game includes a program guide, workbook and game materials. For upper elementary to senior high school classes.

All about you game — Features interpersonal skills like introducing yourself and respecting others.

Behavior skills game — Features self-control strategies and being responsible.

Community skills game — Features safety signs, finding a restroom and other essential community skills.

Cooking class game — Features kitchen safety, sanitation and food preparation skills.

Eating skills game — Features table manners and mealtime conversation.

Looking good game — Features personal appearance skills.

Workplace skills game — Features social skills needed at work.

You tell me game — Features personal information like knowing your address.

Looking good. Windsor, ON: Attainment Co.

An introductory personal care program, ideal for nonreaders in Grades 1–12. Teaches routines in sequence like washing hands, brushing teeth and combing hair.

Picture set — Illustrated cues teach users self-care skills step-by-step by following picture sequences. Simply arrange activities in order, place them in a pocketbook or on display pages and perform at the site where they occur. Includes routine cards, pocketbook, display pages and illustrated step pages.

Curriculum — Sets lesson plans and shows how to use materials. Training strategies are easily implemented by following clear directions and task analyses. Has supportive materials, like home contact and questionnaire forms, goal and assessment sheets and progress reports. Includes instructor's guide and resource file.

Video — Mary and friends meet for pizza after school. Viewers see the steps each takes to get ready for their rendezvous. Personal care skills performed correspond to the curriculum. Motivational video blends entertainment with instruction.

Look 'n cook (1985) by Ellen Sudol. Verona, WI: Attainment Company Inc., Educational Training Materials.

This program consists of a cookbook, lesson plans and two videos. Each is available separately. *Look 'n cook* features step-by-step, picture-based instruction for 80 recipes. Lesson plans include instruction on how to set a table, serve the food, safety tips, proper use of kitchen equipment, cooking terms and meal planning. Videos supplement the lesson plans.

My paint and talking coloring books (1994). Winooski, VT: Laureate Learning Systems, Inc.

My paint is an easy-to-use Apple or IBM computer drawing program that enables students with disabilities to create beautiful, personalized artwork. Large menu icons offer a variety of colours, different brush sizes, a mirror option, a fill tool, an eraser and many other special effects. Press on the mouth icon and it even talks!

The *Talking Coloring Books* computer programs provide a straightforward way to reinforce vocabulary and language concepts. Children can use either a touch screen or a mouse to access the programs.

My town: language activities of daily living by Barbara Couse Adams. Distributed by Insight Media Centre. ISBN 1–56405–033–5.

This program offers a motivating way to learn language commonly used in a community. Each of the four activities can be carried out in six familiar settings: doctor's office, dentist's office, restaurant, park, city neighbourhood and suburban neighbourhood. It familiarizes children and adults with over 100 items in their community.

Passports to independence. Milwaukee, WI: Crestwood Company, Communication Aids for Children and Adults.

These resources are tools for providing increased opportunities for communication, vocabulary building and identification, classification skills, sequencing and can be useful as memory aids. This series of pictures include: Fast Food Passport, 44 pictures useful for ordering food; Casual Dining Passport, 135 restaurant pictures; Supermarket Pictures, 315 pictures of common products; Personal Needs Passport, 47 pictures of clothing and personal items; Shopping Center Passport, 270 pictures of items purchased in a variety of stores; School Passport, basic vocabulary of schools; and Recreation Passport, 225 pictures related to sports and recreation.

Picture prompt cards. Windsor, ON: Attainment Co.

These illustrated cards can be used to make a picture list of things to do, or as communication cues. Useful for making shopping lists, personalized

picture menus and personal care routines or making a picture schedule covering all the day's activities.

Includes 240 Shopping Cards, 144 Select-A-Meal Cards and 192 Daily Activity Cards; marking set; storage boxes. Grades 1–12.

Pre-dressing skills (1983) by Marsha D. Klein. Tucson, AZ: Communication Skill Builders. ISBN 0–88450–868–4.

This workbook is designed for preschool and special education teachers, occupational and physiotherapists and nurses to use as a self-teaching tool. The manual discusses the developmental sequence of learning specific dressing and undressing skills. It provides practical, task-analyzed teaching techniques and describes adaptive techniques and equipment available for students and adults with physical disabilities.

Pre-scissor skills (1990) by Marsha D. Klein. Tucson, AZ: Communication Skill Builders. ISBN 0–88450–967–2.

The author discusses the developmental stages of scissor use and explains how to assess each student's skill level so that instruction can be targeted to the current level of performance. She shares techniques and adaptations, and describes games and activities in which students can practise scissor skills. Guidelines are given for drawing up an individual pre-scissor program for each student. Reproducible materials.

Pre-writing skills (1990) by Marsha D. Klein. Tucson, AZ: Communication Skill Builders. ISBN 0–88450–822–6.

The author discusses the developmental stages of writing and explains how to assess each student's skill level so that instruction can be targeted to the current level of performance. She shares techniques and adaptations, and describes some activities in which students can practise pre-writing skills. Guidelines are given for drawing up an individual pre-writing program for each student.

The Special artists' handbook (1984) by Susan Rodriguez. Distributed by Addison-Wesley Publishing Ltd. ISBN 0–86651–476–7.

This *Handbook* is organized for easy use into four major sections:

I – THE HANDICAPS. Information identifying the characteristic traits of major handicapping conditions.

II – ART ACTIVITIES. More than 50 detailed projects with specific suggestions for tailoring them to each exceptionality.

III – ADAPTIVE AIDS AND MATERIALS. Instructions for easy-to-make aids that enable students with disabilities to participate in lessons, plus materials for sensory and tactual enrichment.

IV – THE ART CLASSROOM. Discussion of important environmental accommodations, including furniture, lighting, tools, equipment, storage and display requirements, as well as critical safety concerns.

Steps to independence: a skills training guide for parents and teachers of children with special needs (1989) by Bruce Baker, Alan Brightman, Jan Blacher, Louis Heifetz, Stephen Hinshaw & Diane Murphy. Baltimore, MD: Paul H. Brookes Publishing. ISBN 1–55766–006–9.

This resource offers a step-by-step approach for teaching students with disabilities the get-ready, self-help, toilet training, play, advanced self-care, home-care and information skills that are necessary for independence. Case examples, sample activities and timesaving record-keeping forms are provided. Instructional strategies, specific activities and behavioural management strategies are featured.

The Syracuse community-referenced curriculum guide for students with moderate and severe disabilities (1989) by Alison Ford & Roberta Schnorr (eds.). Baltimore, MD: Paul H. Brookes Publishing Co. ISBN 1–5576–027–1.

This curriculum is suitable for students from kindergarten through age 21. Practical implementation strategies are included to assist in the teaching of skills that are directly related to the expectations and demands of the community in the context of integrated school settings. The principles of individualized instruction and home-school collaboration are vital components. The scope and sequence charts included in each community living chapter provide a framework for the selection of goals, within typical age expectations, noting when instructional opportunities most naturally occur and can reasonably be incorporated into a student's program. A detailed application is provided in the book's companion volume, the *Syracuse curriculum revision manual*, available separately.

Systematic teaching and educational planning manual: teacher resource (1989) by Edmonton Public Schools. Edmonton, AB: Edmonton Public School District No. 7.

The manual provides strategies for the assessment of educational needs, instructional methods, task analysis, student recording, classroom organization, building the classroom team, community based instruction and five approaches to the management of behaviour.

Talking pictures. Milwaukee, WI: Crestwood Company, Communication Aids for Children and Adults.

Talking pictures is designed to provide a basic means of communication for individuals who have difficulty expressing their needs orally and cannot be understood by others. The pictures can also be used as a tool to improve auditory and visual comprehension. These pictures are available in picture card format or in sticker format. Kit I contains 115 functional picture cards illustrating survival living needs. Kit II contains 220 picture cards of school and community needs. Kit III contains vocabulary related to food, clothing and shelter. Plastic picture holders, a variety of portable books and communication boards for displaying the symbols are also available. These pictures are also useful in conjunction with the *Bridge reading kit* for developing functional reading skills.

Touch math: the touchpoint approach to teaching basic math computation (4th edition) (1991). Colorado Springs, CO: Innovative Learning Concepts, Inc. Phone 1–800–888–9191, Colorado Springs, Colorado, for a free catalogue and a free viewing of the *Touch math* video training tape.

Touch math emphasizes multi-sensory learning to introduce math concepts to students.

This edition has been expanded to include nine kits, one each for number concepts, addition, subtraction, sequence counting, multiplication/ division, place value, shapes and sizes, time and money. Together they incorporate over 1 500 fact mastery activity masters and teaching aids, all designed to make math a positive, non-threatening and active experience.

Each kit consists of sets of blackline masters, progress tests complete with answer keys, fact activity mastery pages and other teaching aids, a Kit Guide and a Touch Math Instruction Manual. Their contents are organized into four sections: Primary Activity Masters, Ancillary Activity Masters, Teaching Aids and Reference Documents.

Wings to fly (1993) by Sally D. Bailey. Distributed by Monarch Books of Canada. ISBN 0–933149–58–1.

This is a handbook for special education and drama teachers at the elementary through high school levels. It describes practical techniques and lesson plans to teach drama to students with a wide array of special needs in an academic and theatre setting. Readers also learn about the therapeutic and educational benefits of theatre arts – how children and young adults gain self-confidence, sharpen their communication skills, discover how to be team players and find new ways to express themselves.

Section VI
Publishers' Addresses

Addison-Wesley Publishing Ltd.
26 Prince Andrew Place
P.O. Box 580
Don Mills, ON M3C 2T8
Telephone: 1–800–387–8028

Attainment Company Inc.
P.O. Box 354
Windsor, ON N9A 6K7
Telephone: 1–800–327–4269

Carson-Dellosa Publishing
Company, Inc.
P.O. Box 35665
Greensboro, NC 27425–5665
USA
Telephone: (910) 632–0084

The Center for Applied Research
in Education
P.O. Box 430
West Nyack, NY 10994
USA
Telephone: (201) 767–5937

Communication Skill Builders
a division of the Psychological
Corporation
Canadian Distributor:
Harcourt Brace Company Canada Ltd.
#55 Horner Avenue
Toronto, ON M8Z 4X6
Telephone: 1–800–387–7278

The Council for Exceptional Children
1920 Association Drive
Reston, VA 22091–1589
USA
Telephone: (703) 620–3660

Crestwood Company
Communication Aids for Children
and Adults
6625 North Sidney Place
Milwaukee, WI 53209–3259
USA
Telephone: (414) 352–5678

Curriculum Associates
Canadian Distributor:
Virginia Wood
1408 Crescent Road N.W.
Calgary, AB T2M 4B1
Telephone: (403) 282–2441

Edmonton Public Schools
Curriculum Department
Centre for Education
One Kingsway Avenue
Edmonton, AB T5H 4G9
Telephone: (403) 429–8000

Human Kinetics Publications
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Champaign, IL 61825–5076
USA
Telephone: (217) 351–5076

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USA
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Insight Media Centre
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J. Weston Walch
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Laureate Learning Systems, Inc.
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Winooski, VT 05404–1898
USA
Telephone: (802) 655–4755

LinguiSystems Alberta Representative:
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Telephone: (403) 282–2441

Magic Lantern Communications Ltd.
775 Pacific Road, Unit 38
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Telephone: (519) 895–0330

Monarch Books of Canada
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Downsview, ON M3H 5T5
Telephone: 1–800–404–7404

The Ontario Institute for Studies
in Education (OISE Press)
252 Bloor Street West
Toronto, ON M5S 1V6
Telephone: (416) 926–4723

Paul H. Brookes Publishing Co.
Canadian Distributor:
Copp Clark Longman
2775 Matheson Boulevard East
Mississauga, ON L4W 4P7
Telephone: (905) 238–6074 or
1–800–263–4374

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Scarborough, ON M1P 2J7
Telephone: 1–800–567–3800

Prentice-Hall, Inc.
113 Sylvan Avenue, Route 9W
Englewood Cliffs, NJ 07632
USA
Telephone: (201) 592–2000

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P.O. Box 290, Station V
Toronto, ON M6R 3A5
Telephone: 1–800–263–3558

Research Press
60 Rankin Street
Waterloo, ON N2V 1V9
Telephone: 1–800–265–3375

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Suite 403, 77 Mowat Avenue
Toronto, ON M6K 3E3
Telephone: (416) 533–5490

Technical Resources Centre
200, 1201 – 5 Street S.W.
Calgary, AB T2R 0Y6
Telephone: (403) 262–9445

Section VII
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[3] "Getting started with augmentative communication," by N. A. Chedd, 1995, *Exceptional Parent*, *25*(5), pp. 34–35.

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[8] ECSS Educational and Counselling Support Services (1995).
11232 – 100 Avenue, Edmonton, AB T5K 0H9.
Telephone: (403) 482–3277.
Contacts: Dr. Graham Ross or Patricia Schuster.

[9] ECSS Educational and Counselling Support Services (1995).
11232 – 100 Avenue, Edmonton, AB T5K 0H9.
Telephone: (403) 482–3277.
Contacts: Dr. Graham Ross or Patricia Schuster.

[10] *Best practices in mild mental retardation* (p. 349), by J. R. Patton, E. A. Polloway, G. A. Robinson and L. R. Sargent, 1989, Reston, VA: Council for Exceptional Children.

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Alberta
EDUCATION

3

Individualized Program Plans

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(Programming for students with special needs)
ISBN 0–7732–1838–6

1. Special education — Alberta. 2. Individualized instruction — Alberta.
I. Title. II. Series: Programming for students with special needs.

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This document is intended for:

Students	
Teachers	✓
Administrators	✓
Counsellors	✓
Parents	
General Public	

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UNIVERSITY OF ALBERTA

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  - Alberta Association for Community Living
  - Alberta Home and School Councils' Association
  - Alberta School Boards Association
  - Alberta Teachers' Association
  - College of Alberta Superintendents
  - Council for Exceptional Children (CEC), Alberta Federation
  - Learning Disabilities Association of Alberta
  - Premier's Council on the Status of Persons with Disabilities
  - University of Alberta, Department of Educational Psychology.

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  - Wolf Creek Regional Division No. 32.

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Introduction to the Series

Programming for Students with Special Needs is a series developed in response to a needs assessment survey conducted by the Special Education Branch of Alberta Education in the Spring of 1992.

The information provided by survey respondents has been used to guide the nature and content of the series. The respondents indicated the need for practical suggestions about instructional strategies, classroom management, preparing individual program plans and understanding the nature of special needs. They also wanted information about the availability of special education resources.

The following books are included in the series. The information in each book is interrelated and can be used to provide instruction to all students.

Book 1: ***Teaching for Student Differences***
Highlights strategies for differentiating instruction within the regular classroom for students who may be experiencing learning or behavioural difficulties, or who may be gifted and talented. It includes ideas for varying instructional time, the learning environment, resources, materials, presentation, assignments and assessments to accommodate students with diverse needs. This book contains instructional strategies for core subjects as well as by categories of differences; i.e., learning disabilities, behaviour disorders and gifted and talented. A variety of useful forms to assist teacher planning is found in the appendices.

Book 2: ***Essential and Supportive Skills for Students with Developmental Disabilities***
Includes:

- developmental checklists for communication skills; i.e., receptive, expressive, social, articulation and vocabulary
- checklists for gross and fine motor development, including colouring, graphics, manuscript printing and cutting
- charts and checklists which provide a continuum of life skills by domain (domestic and family life, personal and social development, leisure/recreation/arts, citizenship and community involvement, career development)
- checklists for mathematics, reading and writing to Grade 6
- an annotated list of other teaching resources.

Book 3: ***Individualized Program Plans***
Contains a process for IPP development and strategies for involving parents. This book provides information on writing long-term goals and short-term objectives along with case studies and samples of completed IPPs. It addresses transition planning and features forms and checklists to assist in planning.

Book 4: ***Teaching Students Who are Deaf or Hard of Hearing***
Includes information on the nature of hearing loss and the various communication systems which may be used The book contains information on amplification, educational technologies, program planning and teaching strategies.

Book 5: *Teaching Students with Visual Impairments*
Is under development in collaboration with the British Columbia Ministry of Education. The expected release date is Spring 1996.

Book 6: *Teaching Students with Learning Disabilities: Classroom Strategies*
Is under development in collaboration with the Elk Island Public Schools Regional District. The expected release date is Spring 1996.

Programming for Students with Special Needs is not intended to be a complete authority on the many disciplines associated with the education of students with special needs. In providing instruction to students with special needs, staff should utilize the support services available in their jurisdiction.

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Section I
When is an Individualized Program Plan Necessary?

School boards are responsible for identifying students with special needs, developing and implementing individualized program plans (IPPs) for those students and evaluating their progress.

Students with special needs may require changes to the regular curriculum, staffing, instructional and evaluation strategies, materials and resources, facilities or equipment. The school and the parents determine when the modifications of the regular program are extensive enough to require an IPP.

The IPP acknowledges the student's strengths and needs and explains how the school's programming will address those areas. Development of the IPP is intended to foster a team approach. The educational growth of a student is best accomplished through the mutual efforts of, and close communication among, the student, the family, the school, the community and other professionals involved with the student.

An IPP is . . .

- a summary of the goals and objectives for a student's learning during a school year
- a written plan prepared for those students who require modifications of the regular school program
- a tool to help teachers monitor and communicate student growth
- a plan developed, implemented and monitored by school staff
- a document to communicate to parents, students and staff
- a flexible, working document with meaning for all contributors
- an ongoing record to ensure continuity in programming.

An IPP is not . . .

- a description of everything that will be taught to one student
- the goals and objectives of an educational program for all students
- a means to monitor the effectiveness of teachers
- a daily plan
- a report card, however it may be used as such
- a legal contract
- "written in stone."

Section II
Essential Information

The IPP is a written commitment of intent by an educational team. It is meant to ensure the provision of appropriate programming for students with special needs and to act as a working document. It also provides a record of student progress. Modifications in programming to meet the educational needs of students should be reflected and documented in each student's individualized program plan.

Preparation of the IPP provides the opportunity for parents, teachers, school-based administrators and others involved with the student to address the learning needs of the student. The school administrator has the responsibility of ensuring that the IPP is prepared and maintained.

The IPP is a mandatory requirement of Alberta Education and should include the items presented in the following checklist.

Included	Essential Information
___	• assessed level of educational performance
___	• strengths and areas of need
___	• long-term goals and short-term objectives
___	• assessment procedures for short-term objectives
___	• special education and related services to be provided
___	• review dates, results and recommendations
___	• relevant medical information
___	• required classroom accommodations (any changes to instructional strategies, assessment procedures, materials, resources, facilities or equipment)
___	• transition plans

An IPP should describe what the student knows and can do, what and how the student should learn next, where the instruction will take place, who will provide it, how long it may take and what the student will do to demonstrate learning.

A section of completed IPP samples begins on page IPP.50.

Section III
The IPP Process

The process for developing an individualized program plan is outlined in this document in the following stages:

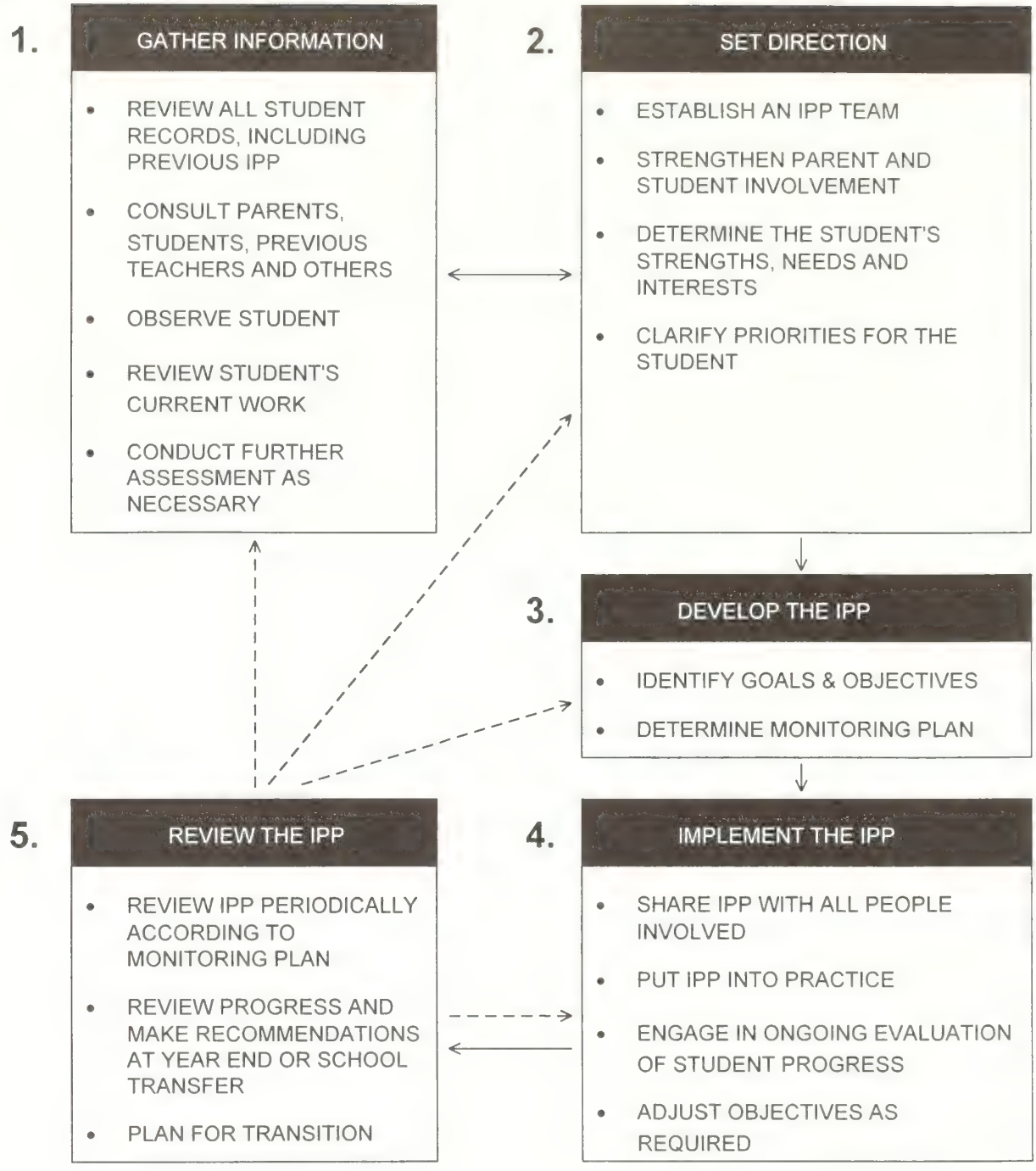
1. gather information
2. set direction
3. develop the IPP
4. implement the IPP
5. review the IPP.

Although the stages are given in sequence, teachers may vary the emphasis and order to meet individual needs. Several stages may be worked on simultaneously.

The following graphic represents an overview of the five stages in the IPP process. It may be used as a reference to ensure that the steps in developing, implementing and reviewing an IPP have been addressed. Note the interaction among the stages indicated by the arrows. The dotted arrows emanating from stage five indicate that during the review it may be advisable to refer back to the preceding stages in the IPP process.

Note: A team approach underlies the IPP process.

The IPP Process


1.
GATHER INFORMATION
• REVIEW ALL STUDENT RECORDS, INCLUDING PREVIOUS IPP
• CONSULT PARENTS, STUDENTS, PREVIOUS TEACHERS AND OTHERS
• OBSERVE STUDENT
• REVIEW STUDENT'S CURRENT WORK
• CONDUCT FURTHER ASSESSMENT AS NECESSARY
2.
SET DIRECTION
• ESTABLISH AN IPP TEAM
• STRENGTHEN PARENT AND STUDENT INVOLVEMENT
• DETERMINE THE STUDENT'S STRENGTHS, NEEDS AND INTERESTS
• CLARIFY PRIORITIES FOR THE STUDENT
3.
DEVELOP THE IPP
• IDENTIFY GOALS & OBJECTIVES
• DETERMINE MONITORING PLAN
4.
IMPLEMENT THE IPP
• SHARE IPP WITH ALL PEOPLE INVOLVED
• PUT IPP INTO PRACTICE
• ENGAGE IN ONGOING EVALUATION OF STUDENT PROGRESS
• ADJUST OBJECTIVES AS REQUIRED
5.
REVIEW THE IPP
• REVIEW IPP PERIODICALLY ACCORDING TO MONITORING PLAN
• REVIEW PROGRESS AND MAKE RECOMMENDATIONS AT YEAR END OR SCHOOL TRANSFER
• PLAN FOR TRANSITION

Gather Information

The IPP process begins as the team compiles information about the strengths, needs, likes and dislikes of the student. The team may want to gather the following information about student performance: academic achievement, attendance, school behaviour, communication skills, likes, dislikes, problem-solving skills, social skills, learning style, mobility and self-concept. Sources of gathering information include student records, consultation, student observations, current work and assessments.

Student Records

Student records provide the following information:

- student registration form (medical history, citizenship, eligibility status, enrollment history)
- reports from consultant staff and outside agency personnel
- summaries of tests and interpretative reports
- medical information provided by the parents
- previous IPPs
- previous progress reports, anecdotal records stating concerns.

Relevant medical information should be recorded on the IPP form. Frequently, there is information about a student's achievement and learning styles. If there is sufficient information to plan for and implement programming, no further assessment is necessary. If there is insufficient information, assessment should be undertaken.

Consultation

Parents

Parents provide a unique perspective about their child's personality, development and learning. Open communication and cooperation between home and school increases the opportunities for students with special needs to experience success. See pages IPP.15–20 for more information on involving parents.

Students

Student involvement, where appropriate, is also important. Teachers should encourage students to share perceptions of their learning strengths, needs and interests. This information may be gathered through interviews, discussions, interest inventories, journals or learning logs. See pages IPP.13–14 for more information on involving students.

Previous Teachers

Previous teachers can provide information about student strengths, needs and what has worked well in the past. They may also help set priorities.

Other Professionals

The following may also provide information:

- school administrators
- counsellors
- program aides
- resource teachers
- consultants
- occupational therapists
- physiotherapists
- medical professionals
- public health nurses
- social workers
- speech-language pathologists
- psychologists.

Student Observations

Through observation, teachers learn:

- how students respond to reading, approach new tasks, persist with tasks, interact with others, organize self, time and materials, use language, perform individually and in group activities and respond to various types of cues (auditory, visual, direct/indirect verbal cues)

- the effect of variables surrounding learning; for example, lighting, sound, temperature, the physical arrangement of the classroom, colour, the time of day, the presentation of and adherence to routines or schedules, the number of persons in the immediate area, peer interaction and teacher and support staff behaviours.

Teachers record their observations in a variety of ways: anecdotal comments from classroom observations and reflections, checklists, frequency data on specific behaviours, audio and video recordings, peer and support personnel observations, interviews, students' self-evaluations, informal observations expressed by other school personnel and observations by family members.

Sample student self-evaluation forms are provided on pages IPP.9–10.

Reviewing Students' Current Work

Teachers may also refer to student work samples. Samples of students' current work may include journals, selected pages from notebooks, video and audio recordings, peer evaluations, writing samples, assignments, unit tests, diagnostic tests, art samples and portfolios.

Assessment

Further assessment should follow if sufficient information is not available. This decision should be made in consultation with parents.

Conduct the required individual assessments to complete the initial data collection on the student. These assessments might be drawn from additional observations and work samples; diagnostic tests; teacher-created tests; developmental assessments; standardized tests; additional consultation with parents, students, previous teachers; living/vocational skills assessment and observation of students in the context of daily routines.

Consolidate and examine the information for details and consistent patterns of student strengths, interests and needs.

Record information on the current level of achievement, strengths and interests on the IPP.

Check whether information from various sources supports the pattern and examine any discrepancies. Collect more information as needed.

Student Self-evaluation Checklist[1]

Name: _____ Date: _____

Directions: Place a checkmark (✓) next to the skill areas in which you feel you do well and the areas in which you feel you need help.

Reading

	Do Well	Need Help
Reading new words	( )	( )
Reading stories	( )	( )
Understanding new words	( )	( )
Understanding stories	( )	( )
Understanding textbooks	( )	( )
Understanding written directions	( )	( )

Behaviour/Social Skills

	Do Well	Need Help
Raising my hand	( )	( )
Staying in my seat	( )	( )
Taking turns	( )	( )
Making friends	( )	( )
Controlling my anger	( )	( )
Being nice to others	( )	( )

Language Arts

	Do Well	Need Help
Spelling words	( )	( )
Writing sentences	( )	( )
Creating stories	( )	( )
Saying what I mean	( )	( )
Being understood by others	( )	( )

Mathematics

	Do Well	Need Help
Reading numerals over a thousand	( )	( )
Adding more than two-digit numbers	( )	( )
Subtracting with borrowing	( )	( )
Remembering multiplication facts	( )	( )
Dividing with remainders	( )	( )

[1] From "Someone's missing: the student as an overlooked participant in the IEP process," by M. T. Peters, 1990, *Preventing School Failure*, *34*(4), pp. 33–34. Reprinted with permission of the Helen Dwight Reid Educational Foundation. Published by Heldref Publications, 1319 Eighteenth Street N.W., Washington, DC 20036–1802. Copyright ©1990.

Student Self-assessment[2]

Please evaluate your study habits and personal growth.

Ratings: + = outstanding growth
X = OK or satisfactory growth
• = need to improve in this area

Put the appropriate mark on each line below.

Study Habits

_____ Following directions
_____ Completing assignments on time
_____ Working well in (your) group
_____ Working well alone
_____ Listening well to someone speaking
_____ Showing neatness in your work and desk
_____ Assuming responsibility for your work

Personal Growth Areas

_____ Considering other people's feelings
_____ Following school rules in a positive way
_____ Taking care of your personal belongings
_____ Being able to accept responsibility for your own actions
_____ Being able to get along with others

Is there anything that you would like to share with me about yourself or your work?

_____

Is there anything you would like me to write on your report card or share with your parents?

_____

Are there other comments that might be helpful for me to know?

_____

THANK YOU FOR YOUR HELP!

[2] From Edmonton Public School District No. 7. Reprinted with permission

Set Direction

Establish an IPP Team

Many schools have student support teams to help teachers generate ideas and suggestions for program modifications for referred students. Student support teams use a collaborative process in which problem solving and brainstorming techniques are utilized. Every student support team has a unique design to fit the skills, expertise and demands within each school and across all levels. If an IPP is required, members of the student support team may participate as members of the IPP team. (For information about student support teams, please see the *Programming for Students with Special Needs* series, Book 6 — *Teaching Students with Learning Disabilities: Classroom Strategies*, to be released Spring 1996.)

IPP team membership can and should vary depending upon the educational needs of individual students. Teams could include the student, the parents, the teacher, the principal and any related service personnel.

The IPP team meets on a regular basis to:

- develop an understanding of the student's strengths, interests and needs
- share information and observations about the student's behaviour and learning in a variety of settings
- make decisions about educational goals and objectives related to areas of student learning at school, at home and in the community
- reach consensus about the support required from related services personnel
- design educational methods and interventions
- make decisions about integrating therapeutic services into the classroom.

The planning process should:

- be conducted in plain language
- be future oriented; only with a view to the future can planning achieve the best possible means of reaching the goals of the program
- include a record of the proceedings of the planning meeting (a checklist to assist in conducting the planning meeting and a conference planning form are included on pages IPP.24–29)
- address the following questions:
  - What is the student's history?
  - What are the parents' or guardians' goals for their child?
  - What are the student's goals?
  - What are the student's strengths, interests, talents?

- What are the student's needs?
- What would be a successful day for the student?
- What are the changes that need to be made to ensure a successful day?

Responsibilities of Team Members

The principal designates a teacher the primary responsibility for developing the IPP. Staff develop IPPs with the assistance of parents and, where appropriate, students and other professionals. Listed below are some of the responsibilities and ways in which team members might participate in the development and implementation of a successful individualized program plan.

Principal or Designate:

- is a member of the IPP team
- ensures that IPPs are prepared, implemented and evaluated
- ensures support personnel, appropriate materials and inservice training are provided as required given the needs of the student
- establishes procedures for involving parents in the IPP process.

Classroom Teacher:

- is a member of the IPP team
- shares information collected during the information gathering stage
- is aware of the parents' or guardians' expectations for their child's program
- is aware of the needs of exceptional students
- plans and carries out instructional programs
- modifies instructional methods and materials
- develops strategies for assessing and communicating student progress
- maintains ongoing communication with parents and other teachers.

Special Education Teacher:

- is a member of the IPP team
- provides diagnostic assessment to determine student strengths and areas of need
- generates ideas and suggestions for program modification and/or adaptation
- provides advice about materials and resources
- plans and carries out instructional programs
- develops strategies for assessing and communicating student progress
- maintains ongoing communication with parents and other teachers.

Teacher Assistant/ Paraprofessional:

- participates with the IPP team
- helps students with learning activities under the direction of the teacher
- assists with the modification of materials and instructional methods
- monitors and records the progress of individual instructional goals
- problem solves on the spot
- maintains ongoing communication with teachers.

Parents/Guardians:

- are members of the IPP team
- act as advocates for their child's best interest

- participate in the IPP process and assist in the development of the IPP (share information about their child's learning styles, interests, reactions to situations and ways to avoid potential problems)
- reinforce and extend the educational efforts of the teacher
- provide feedback on the transfer of skills to the home and community environments
- maintain an open line of communication with the school.

Consultants:

- participate with the IPP team, if requested
- help determine learning strengths and needs
- develop strategies for incorporating therapy needs into classroom routines
- provide advice about materials and resources
- train staff to implement strategies
- provide technical assistance
- act as a resource and support to families
- maintain ongoing communication with the teacher/team
- provide assessment as necessary.

Students:

Although the nature and degree of involvement will vary, students should be involved in the IPP process.

Students should[3]:

- understand the purpose of their IPPs and how to take part in the process
- be encouraged to attend IPP meetings
- be able to identify, label and explain their goals
- understand how their objectives are individually tailored, evaluated, reviewed and updated
- take responsibility for tracking goals, where appropriate.

The graphic on page IPP.14 illustrates several ways students can be involved in the IPP process. Students can be part of the consultation process as members of the IPP team. They may participate in their performance assessment through self-evaluation and interest inventories (pages IPP.22–23), and by indicating their learning preferences and priorities. Students may participate in instruction by focusing on specific learning goals, by self-monitoring their progress and by meeting with IPP team members and parents.

[3] Adapted from "High school students rate their IEPs: low opinions and lack of ownership," by T. C. Lovitt, S. S. Cushing and C. S. Stump, 1994, *Intervention in School and Clinic*, *30*(1), pp. 36–37. Copyright © 1994 by Pro-ed, Inc. Reprinted with permission.

Student Involvement in the IPP Process[4]

[4] From "Someone's missing: the student as an overlooked participant in the IEP process," by Mary T. Peters, 1990, *Preventing School Failure*, *34*(4), pp. 33–34. Reprinted with permission of the Helen Dwight Reid Educational Foundation. Published by Heldref Publications, 1319 Eighteenth Street N.W., Washington, DC 20036–1802. Copyright ©1990.

Parents as Integral Team Members

Parents should be included as active members of the IPP team as early in the process as possible. Educational priorities identified by family members should be a primary consideration. The benefits of involving parents include the following.

Parents:

- are able to communicate a picture of the life of the student thus far (see sample parent input form for students with developmental disabilities, page IPP.19)
- can provide up-to-date medical information
- can help achieve continuity of programming over time
- have important information regarding the likes, dislikes, interests and skills the child demonstrates in the home and community
- can assist in developing goals and effective strategies
- can offer opportunities for practice, reinforcement, generalization and maintenance of skills in the home.

Strategies to Support Parent Involvement:

- communicate openly and regularly with parents in language which is free of jargon
- clarify how parents can participate
- give parents the opportunity to specify how, and to what degree, they wish to become involved in their child's educational program (a sample communication form is provided on page IPP.17)
- provide parents access to parenting programs, if available
- contact parents by telephone as well as through written communication to notify them of IPP meetings
- advise parents of the topics which will be discussed at the IPP meeting and who will be in attendance
- send home a rough draft of goals and objectives to enable parents to familiarize themselves prior to the IPP meeting
- consider giving parents a goal-setting form; sample questions that may be used to develop the form are found on page IPP.18
- have a school representative greet the parents, guide them to the conference room and make introductions
- ensure parents are comfortable at IPP meeting by sitting with them
- clarify (through comments or questions) if you suspect that the parent is concerned or confused about any part of the IPP plan.

The following tip sheet may be provided to parents to help them maximize their opportunities for participation in their child's educational program.

Tips for Parents

General Tips

Parents are valuable members of the IPP team. The following tips may enhance your participation in your child's educational program:

- ❑ maintain ongoing contact with the school
- ❑ take an active role in decision making
- ❑ ask about other parents who may be in a similar situation; they can be a valuable resource
- ❑ ask about the services and resources available.

Tips for Participating in the IPP Process

Before the meeting:

- ❑ find out in advance what the agenda is
- ❑ discuss your child's involvement in the process
- ❑ jot down your comments and questions in advance
- ❑ think about your goals and expectations for your child.

At the meeting:

- ❑ make time limits known if you have other commitments
- ❑ provide samples of your child's work done at home if you think they could be useful
- ❑ ask questions if anything is unclear to you
- ❑ ask how you can help achieve some of these goals at home.

NOTES

What Do You Consider Important About School Contacts?[5]

Parents have different ideas about the kind and amount of information they want from school about their child. The list below contains ways you and your child's teacher might communicate. Please circle the number to the right of the phrase to show how important each type of contact is to you, then place the numbers 1, 2 or 3 next to the three most important ways to communicate with your child's teacher.

Comments	Not Applicable	Not Important					Very Important	Rank
Written notes	0	1	2	3	4	5	6	___
School newsletters	0	1	2	3	4	5	6	___
Parent/teacher/ student conferences or IPP meetings	0	1	2	3	4	5	6	___
Open house/student-led conferences	0	1	2	3	4	5	6	___
Informal contacts	0	1	2	3	4	5	6	___
School council meetings	0	1	2	3	4	5	6	___
Classroom observation	0	1	2	3	4	5	6	___
Telephone calls	0	1	2	3	4	5	6	___
Other, please specify:	0	1	2	3	4	5	6	___

How much contact do you want to have with your child's teacher?

❑ Daily ❑ Once a week ❑ Once a month

❑ Once a semester ❑ Other (specify)

Would you prefer

❑ to initiate most of the contacts with your child's teacher?

❑ the teacher to initiate contacts with you?

❑ both?

[5] From *Collaborative teams for students with severe disabilities: integrating therapy and educational services* (pp. 55, 254), by B. Rainforth, J. York and C. Macdonald, 1992. Reprinted with permission. Paul H. Brookes, P.O. Box 10624, Baltimore, MD 21285–0624.

Sample Questions for Parent Goal-setting Form

The following sample questions could be used to develop a parent goal-setting form.

- What kinds of responsibilities do you give your child?

- How do you reward your child's good behaviours? How do you deal with your child's unacceptable behaviours?

- What concerns you most about your child?

- What do you see in the future for your child?

- What kind of recreational interests would you like to see encouraged in your child?

- What are your opinions regarding homework for your child?

- How much contact do you wish to have with the school? What form would this contact take?

- What part would you like to play in your child's school life?

- Do you have any questions or suggestions related to the services provided to your child?

- What are the three most important goals that you have for your child this year?

Parent Input on Student Preference and Choice[6]

Student: _____ Date: _____

Completed by: _____

How does your child communicate with friends and family members?

- ❑ Sign Language
- ❑ Speech
- ❑ Communication device
- ❑ Gestures (pointing, eye gaze)
- ❑ Gestures and sounds

When your child likes something, which of the following will he or she do?

- ❑ Say something
- ❑ Laugh or smile
- ❑ Imitate you
- ❑ Change facial expression
- ❑ Look at someone
- ❑ Look at something
- ❑ Move body
- ❑ Point or reach out
- ❑ Make sounds
- ❑ Other (please fill in)

_____

When your child dislikes something, which of the following will he or she do?

- ❑ Say something
- ❑ Cry
- ❑ Change facial expression
- ❑ Scream
- ❑ Throw tantrum
- ❑ Look away
- ❑ Pull away
- ❑ Push object or person away
- ❑ Make sounds
- ❑ Gesture
- ❑ Other (please fill in)

_____

What are your child's favourite:

Foods	Activities

[6] From *The Syracuse community-referenced curriculum guide for students with moderate and severe disabilities* (p. 317), by A. Ford, et al., 1989. Reprinted with permission. Paul H. Brookes, P.O. Box 10624, Baltimore, MD 21285–0624

How often does your son or daughter choose:

	Frequently	Occasionally	Seldom
When to eat	❑	❑	❑
What to eat	❑	❑	❑
What to wear	❑	❑	❑
When to get up (weekends, etc.)	❑	❑	❑
When to go to bed	❑	❑	❑
What chores to do	❑	❑	❑
What to buy with his or her money	❑	❑	❑
How to spend free time	❑	❑	❑
Who to do things with	❑	❑	❑
Other (please fill in)	❑	❑	❑

_____

Please list some examples of how your child spends free time at home or in the community:

Activities:	With whom?	Times per week
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Who are your child's friends?

Name	Explain relationship; e.g., neighbour
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Anything else we should know about your child's interests, likes and dislikes?

_____

_____

_____

[6] From *The Syracuse community-referenced curriculum guide for students with moderate and severe disabilities* (p. 317), by A. Ford, et al., 1989. Reprinted with permission. Paul H. Brookes, P.O. Box 10624, Baltimore, MD 21285–0624

Determine the Student's Strengths, Needs and Interests

The student's interests and talents can be determined from sources such as interest inventories, student-teacher conferences, information from parents, information from peers, observations of the student and reading preferences.

The information describing the student's strengths, needs and interests should be recorded on the individualized program plan.

Sample student interest inventories are provided on pages IPP.22–23.

Clarify Priorities for the Student

Establishing priorities helps the team focus on what is critical for the student to learn. At this stage, the team acts on information that has been gathered, analyzed and evaluated. To determine the priorities:

- list the student's learning needs in the content and life-skills areas
- rank the student's learning needs in each area
- select the most important learning needs for this school year; try to limit the total number of "most important" needs to three or four

The following factors should be considered when choosing priorities:

- immediacy of need
- possibility of incorporating into other skill areas
- contribution to overall academic achievement
- transferability to other curriculum areas
- contribution to independence
- age appropriateness
- anticipated rate of acquiring the skills
- parents' values and goals
- usefulness in future environments.

Student Interest Inventory

MY FAVOURITE THINGS TO DO

Name: _____

When I am by myself the three things I like to do most are

When I play with my friend, my favourite games are

My three favourite movies are

My favourite computer game is

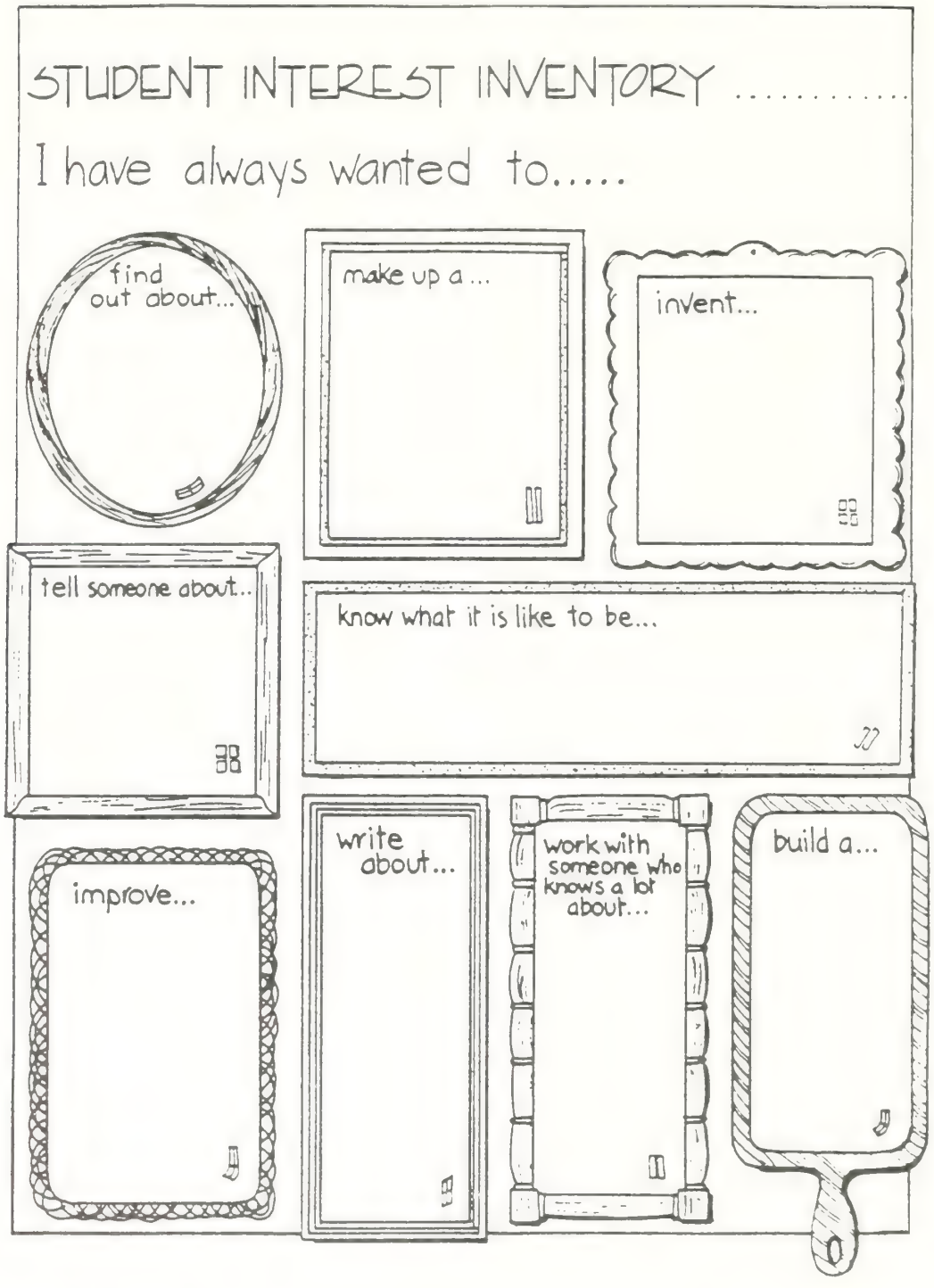
I really like to eat

The animals I like most are

My favourite stories are

My favourite friend is

Student Interest Inventory[7]



[7] From *Academic challenge: a programming guide* (p. 3:31), by Edmonton Public School District No. 7, 1988, Edmonton, AB: Edmonton Public School District No. 7. Reprinted with permission.

Conducting the Planning Meeting[8]

Student's Name:_____ Date:_____

✓	
	Introduce people in attendance.
___	State the purpose, the time limits, the fact that minutes will be taken and the options for post-meeting follow-up.
___	Encourage openness in information sharing, comments and questions.
	Review background:
___	age, address and telephone number
___	entry into program (emphasizing length of time in program)
___	previous program
___	general goal for the placement and a brief statement of the progress since the last reporting period.
	Discuss the following:
___	the student's present level of performance
___	any new assessment data, reports and observations
___	the student's strengths, interests, talents
___	the student's areas of need
___	the parents' goals for their child
___	the student's goals for self
___	the prime areas for focus
___	the long-term goals
___	any special services required
___	areas of responsibility
___	any concerns.
	Summarize the meeting and end on a positive note.
	Set future meeting.
___	Planning meeting follow-up:
___	review key decisions of planning meeting
___	share the information with other school personnel if necessary
	keep a record of planning meetings held and follow-up activities.

[8] From *The IEP process: reference handbook for special class teachers* (p. 29), prepared by A. Reeve and D. Katz, 1987, Victoria, BC: Greater Victoria School District No. 7. Adapted and reprinted with permission.

Conference Planning Form: IPP Priorities[9]

Conference Planning Form: IPP Priorities

Student: _____ Teacher: _____ Date: _____

Parent: _____ Others: _____

Content areas	Activities to retain	New priorities			Team decisions about IPP activities
		Parent	Student	Teacher/ therapist	
Language Arts					
Mathematics					
Social Studies/ Science/Health					
Art and Music					
Physical Education					
School Jobs/ Vocational					

[9] From *The Syracuse community-referenced curriculum guide for students with moderate to severe disabilities* (pp. 237–238, 242–243), by Alison Ford et al., 1989. Reprinted with permission. Paul H. Brookes, P.O. Box 10624, Baltimore, MD 21285–0624.

Conference Planning Form: IPP Priorities [9](cont'd)

Conference Planning Form: IPP Priorities					
Student: _____ Teacher: _____ Date: _____					
Parent: _____ Others: _____					
Content areas:	Activities to retain:	New priorities			Team decisions about IPP activities
		Parent	Student	Teacher/ therapist	
Recreation/ Leisure					
General Community Functioning					
Social					
Communication					
Motor					

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Conference Planning Form[9]

Sample Completed Form

Conference Planning Form: IPP Priorities

Student: Mary Z. Teacher: Doug L. Date: September 22, 19--

Parent: Mrs. W. Z. Others: Linda T., Anna G., Chari L., Roseann B., Tom B.

Content areas:	Activities to retain:	New priorities			Team decisions about IPP activities:
		Parent	Student	Teacher/ therapist	
Language Arts	Listening to stories		Likes the school library, likes looking at pictures		Listening to stories, Looking at books and magazines, Developing a photo journal
Mathematics	Continuing to address math skills within daily routines			Money handling	Making daily purchases (school & community), Follow picture schedule for transitions
Social Studies/ Science/Health					
Art and Music	Art class	Schedule with non-handicapped students			Art 8, IA 9 (Industrial Arts, Wood)
Physical Education	Swimming		Swimming		PE 8 — Swimming
School Jobs/ Vocational		Office setting?	Quiet environ-ment	Opportunities for interactions with co-workers. New tasks?	Develop community job site (office? packaging at hospital?) Train work-related skills

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Conference Planning Form[9]
Sample Completed Form (cont'd)

Conference Planning Form: IPP Priorities

Student: Mary Z. Teacher: Doug L. Date: September 22, 19--

Parent: Mrs. W. Z. Others: Linda T., Anna G., Chari L., Roseann B., Tom B.

Content areas:	Activities to retain:	New priorities			Team decisions about IPP activities:
		Parent	Student	Teacher/ therapist	
Self-Management/ Home Living	Eating, Snack & meal preparation, Dressing & undressing, Using the toilet	Simple breakfasts, Shampooing		Use hall locker, Home Ec 8 Follow picture schedule	Eating, Home Ec snack/food prep., Use picture schedule, Use rest rooms (school, community), Shampoo & dress (swimming), Hall locker (with partner)
Recreation/ Leisure	Using cassette tape player, Swimming, Art	Activities for after school and weekends, expand number and activities	Enjoys computer games	Art 8, Use public library, Check extra-curricular options	Computer Club, Tape player, Swimming (P.E.8 & Art 8), Use public library, Table games (Pictionary), Determine other activities
General Community Functioning	Choosing foods, school cafeteria		Likes fast-food restaurants	Grocery shopping	School cafeteria, Grocery shopping (once a week), Fast-food restaurant (once a week)
Social	Requesting assistance, Using acceptable manners	Maintain contact with circle of friends	To keep peers involved	Initiate and maintain contact with peers	Address those social skills priorities within above activities

[9] From *The Syracuse community-referenced curriculum guide for students with moderate and severe disabilities* (pp. 237–238, 242–243), by Alison Ford et al., 1989. Reprinted with permission. Paul H. Brookes, P.O. Box 10624, Baltimore, MD 21285–0624.

Conference Planning Form[9]
Sample Completed Form (cont'd)

Conference Planning Form: IPP Priorities

Student: Mary Z. Teacher: Doug L. Date: September 22, 19--

Parent: Mrs. W. Z. Others: Linda T., Anna G., Chari L., Roseann B., Tom B.

Content areas:	Activities to retain:	New priorities			Team decisions about IPP activities:
		Parent	Student	Teacher/ therapist	
Communication	Using gestures to express distress	Use more gestures (to tell when she wants to "stop")		Use picture symbol board & booklets, make requests, acknowledge "what's next?"	Address these communication skills within above activities
Motor	Refining grasp for efficiency, Increase mobility (wheelchair)		Help achieve comfor-table positions	Weight-bearing (use standing frame)	Address these motor skills within above activities

[9] From *The Syracuse community-referenced curriculum guide for students with moderate and severe disabilities* (pp. 237–238, 242–243), by Alison Ford et al., 1989. Reprinted with permission. Paul H. Brookes, P.O. Box 10624, Baltimore, MD 21285–0624.

Identify Goals and Objectives

Rationale for Written Goals

Writing goals and objectives should be part of the process of preparing an IPP. Benefits include:

- providing accountability
- helping to motivate students
- facilitating team-parent communication
- facilitating collaboration
- helping to focus learning activities.

Long-term Goals

The annual goals included in the IPP describe what the student can be expected to accomplish within a specified period. Usually the allotted time is one school year. Long-term goals are based on the prioritized needs of the student. Long-term annual goals are the teacher's best prediction of what the student might accomplish in a priority area by the end of the school year. The IPP team determines a manageable number of long-term goals and specifies the responsibility for their implementation during the IPP team meeting.

It is helpful to have a list of categories available when setting long-term goals. For example:

- language arts
- mathematics
- science
- social studies
- fine arts
- vocational skills
- gross motor development
- perceptual motor skills
- social skills.

Although long-term goals indicate the expected level of performance within a year, some goals can be achieved sooner and some will take more than a year. Goal statements which are written for shorter periods of time should also include the expected achievement date; for example, by December 1 the student will . . .

Goals may require modification as the student progresses because there may be extraordinary progress or, in some cases, regression over periods of time.

Examples of Long-term Goals

By the end of the year, the student will:

- display appropriate on-task behaviour during independent work periods
- develop comprehension skills at a third grade level
- demonstrate coherent organization of ideas in final draft writing
- identify and functionally use 50 PIC symbols
- read 240 words on a standard sight word list
- dress self independently
- compose stories at a third grade level

- apply critical thinking skills to comprehend, describe and solve problems
- improve basic work skills through on-site work experience
- increase awareness of the services in the community
- identify and demonstrate all components of a Braille writing machine
- demonstrate knowledge of and assume responsibility for care of hearing aid
- develop figurative language through the use of idioms, similes, metaphors and proverbs
- gain independence in simple routines
- develop an understanding of job families through various media, including interviews.

Short-term Objectives

Short-term objectives represent the intermediate steps between the student's current level of performance and the projected long-term goal. They are written to cover approximately a six-to-eight week period or a standard reporting period on the school calendar, but should be reviewed and revised when necessary. Objectives are written behaviourally and include both the date that the achievement is expected and the criteria for success. Objectives are written in the order that they will be taught or are expected to be mastered.

Objective

❶ achievement date
❷ conditions
❸ expected behaviour
❹ criteria

The objectives should include the following components:

❶ Achievement date

The date that the achievement is expected.

❷ Conditions

The conditions under which the student will perform the task:

- Are there any relevant environmental factors; for example, special lighting for a student with visual impairments?
- Can reference material be used?
- Are there time limitations?
- Does the student perform alone? With a group?
- Is the performance oral, written or demonstrated?
- Is special equipment needed?

Examples:

- given standard household cleaning tools the student will . . .
- when presented with six pictures of common objects, the student will...
- given 20 colour chips, four of each colour, the student will . . .

❸ Expected behaviour

The expected behaviour is what the student will know or be able to do when the learning objective is achieved. In many cases, expected behaviours can be identified by directly listing learner expectations from the program of studies or from *Essential and Supportive Skills for Students with Developmental Disabilities* Book 2 of the *Programming for Students with Special Needs* Series. In other cases, the expected behaviours may need to be described in more detail.

For example; the student will:

- identify the main character in a story (from the program of studies)
- complete a two-piece puzzle – straight cut diagonally (from the list of essential and supportive skills)
- read and write numerals one to 10 (from the program of studies)
- manage zippers, snaps and velcro fasteners (from the list of essential and supportive skills).

❹ Criteria

The criteria for successful achievement of short-term objectives (standard of performance):

- Precise criteria should be stated to provide data regarding the achievement of an objective. In other words, ask, "How will I know and be able to show others that the student has achieved this short-term objective?"
- The standard is often determined by the nature of the task, because complete mastery of one task may not be essential before proceeding to the next one.

  For example:
  - on two of three trials
  - according to the directions in the recipe
  - in at least three different natural settings
  - with 80 per cent accuracy.

Examples of Short-term Objectives

Example 1

By February 15, when presented with six pictures of common objects, the student will be able to verbally identify each object as a first, second or third-class lever on four out of five trials.

Achievement date: by February 15
Conditions: when presented with six pictures of common objects
Expected behaviour: verbally identify each object as a first, second or third-class lever
Criterion: on four out of five trials.

Example 2
By March 15, during project time, when sitting in a group of four peers, the student will visually orient to the student who is speaking on 16 of 20 occasions on five consecutive days.
Achievement date: by March 15
Condition: during project time, when sitting in a group of four peers
Expected behaviour: will visually orientate to the student who is speaking
Criterion: on 16 of 20 occasions on five consecutive days.

Example 3
By October 30, when presented with a sheet containing 30 double digit addition questions, the student will, using a calculator, correctly answer at least 28 questions on four days out of five.
Achievement date: by October 30
Condition: when presented with a sheet containing 30 double digit addition questions, using a calculator
Expected behaviour: write correct answer
Criterion: correctly answer 28 questions out of 30 on four days out of five.

Note: "using a calculator" is listed as a condition as it is an accommodation used with the student. It is part of what is needed to perform the task. If it were a skill being taught and evaluated, then it would be listed under expected behaviour.

Example 4
By November 30, following a student teacher conference, the student will revise initial written draft by adding a minimum of two new ideas or expanding on original ideas or information.
Achievement date: by November 30
Condition: following student teacher conference, using initial draft
Expected behaviour: revise initial written draft by adding to or expanding on original ideas or information
Criterion: a minimum of two additional or expanded ideas in writing.

Example 5
By February 28, when verbally presented with a logical argument, the student will be able to orally identify three supporting statements on four presentations out of five.
Achievement date: by February 28
Condition: when verbally presented with a logical argument
Expected behaviour: orally identify three supporting statements
Criterion: on four presentations out of five.

Determine a Monitoring Plan

Monitoring is most effective when it is periodic and includes all those involved in providing programming for the student.

- Decide who will be responsible for monitoring the implementation of the student's IPP and who will be involved.
- Identify the criteria for making judgements about programming for the individual student.
- Establish a process and timeline for monitoring.
- Record IPP review dates on the student's IPP.
- Record the results of the monitoring process.
- Record any recommended changes.
- Make adjustments as necessary on the student's IPP and in the student's programming.

Implement the IPP

The next phase in the process is the actual implementation of the IPP. Four steps are identified to help the team put the student's IPP into action.

1. Share the IPP

- Meet with the IPP team to discuss implementation of programming plans described in the IPP.
- Provide each staff and team member with a copy of the IPP and ensure that they understand how the student's interests, strengths and needs are to be addressed.
- Discuss the responsibilities associated with the monitoring plan.
- Meet with parents and the student to share the contents of the IPP and the monitoring plan.
- Discuss parental involvement in supporting the student's program.
- Review the IPP with the school administrator and place a copy of the IPP in the student's cumulative record or insert a note in the cumulative file regarding the location of the IPP.

2. Put the IPP into Practice

- Decide how programming plans for the student will be addressed daily.
- Consider the particular interests, strengths, needs and achievement levels of the student in determining learning tasks.
- Use organizational groupings and learning activities that help the student achieve the goals and objectives specified.
- Establish a means of monitoring goals and objectives within the classroom.
- Emphasize all areas of development in programming for the student with a focus on the priority goals.

3. Engage in Ongoing Evaluation of Student Progress

- Ensure that the activities selected enable the student to demonstrate the objectives.
- Use a variety of techniques or strategies to assess student progress.

- Select assessment strategies that occur naturally in the context of learning in the classroom.

- Develop a system for recording demonstrations of learning.

4. Adjust Objectives

- View the IPP as a working document.

- Develop new objectives if learning is proceeding at a rate faster than anticipated.

- Break objectives into smaller steps if learning is proceeding in smaller increments.

- Note priorities that need more emphasis.

- Evaluate strategies; change strategies as necessary.

- Record changes in programming.

An IPP process checklist appears on page IPP.40.

Review the IPP

Review the IPP According to the Monitoring Plan

During the development of the student's IPP, the staff involved in the process will have decided when and how to monitor the student's progress. Questions that will be helpful in guiding the monitoring process include the following.

✓	Questions
—	Is the IPP still an accurate reflection of the student's programming needs?
—	How effective are the strategies and resources selected to support student learning?
—	How much progress has the student made toward achieving the goals and objectives?
—	Is there any new information that suggests changes be made in the student's programming?
—	Should new goals be selected and new objectives created to more accurately reflect the student's changing strengths, needs and interests?

During a review of the IPP, the student's progress is discussed and possible revisions to the plan are considered. A sample form for use at a review meeting is included on page IPP.37.

A sample form for the year-end meeting is found on page IPP.39. A checklist to ensure that all steps in the IPP process have been addressed is included on page IPP 40.

IPP Review Meeting

Name: Date:

In Attendance:

Review goals and objectives: (clarification of goals and objectives, changes, adjustments)

Develop new objectives: (based on growth of student, new circumstances that may have arisen)

Review and evaluate strategies and services used:

Comments:

Responsibilities:

Review Progress and Make Recommendations at Year End

At the end of the school year or when the student transfers to another school, it is necessary for the IPP team to review the student's educational plan and add written recommendations to the IPP. This review helps ensure continuity in programming for the student.

If the short-term objectives and the annual goals have been met, the following questions might be asked:

- What does the student need to learn next?
- Is the student now able to learn without special education or related services?

If the short-term objectives and the long-term goals have not been met, the following questions might be explored:

- Were the goals appropriate? If not, what goals would be more reasonable for the following year?
- Were the short-term objectives appropriate for the long-term goals?
- Were the short-term objectives presented in logical, sequential order?
- Were the short-term objectives subskills or part of the long-term goal?
- Was the scope of the short-term objective appropriate?
- Were the materials and methods effective? What changes can be recommended?
- Was the assignment of responsibility effective for achieving the goals? If not, what changes need to be made?
- Were the criteria set for achieving the short-term objectives appropriate?
- Did the student make gains in other areas which were not a part of the goals and objectives?
- Did the student assume some responsibility for his or her learning?
- Did the home reinforce the objectives?
- Have parents and/or students been involved in the development of long-term goals and short-term objectives?

IPP Year-end Meetings

Celebrations: (growth, successes, personal observations)

What worked well?

What has proven ineffective?

Goals which require ongoing focus:

Support services review: (personnel, equipment, materials)

IPP Process Checklist

✓	
	Gather Information
_____	Review student records
_____	Consult parents, students, previous teachers
_____	Observe student
_____	Review student's current work
_____	Conduct further assessment
	Set Direction
_____	Establish IPP team
_____	Strengthen parent and student involvement
_____	Determine student's strengths, needs and interests
_____	Clarify priorities
	Develop the IPP
_____	Identify goals and objectives
_____	Determine monitoring plan
	Implement the IPP
_____	Share IPP
_____	Implement IPP
_____	Engage in ongoing evaluation of student progress
_____	Adjust objectives and strategies
	Review the IPP
_____	Review IPP periodically according to monitoring plan
_____	Review progress and make recommendations
_____	Plan for transition

Transition Planning

Transitions from home to school, one grade or level of schooling to another, and from school to work can be difficult and confusing times for students with special needs and their families. A coordinated plan, implemented well before the anticipated move, can ensure that students have supports in place to lessen apprehension about the move.

A carefully developed transition plan will specify the supports and services necessary to enable the student to be successful at school and in the community.

A transition plan should be developed collaboratively with the student, family, services and agencies involved with the student. The plan should reflect the student's needs and the goals for the student in the new setting.

Transition planning should include:

- involvement of the student
- specification of the student's needs
- provision of options to the student and family with pros and cons indicated
- determination of preferences of the student and family
- arrangements for the student and family visits to the preferred option
- assistance with the transfer/application to selected option
- visits to the future site
- goals for the student in the new setting
- specifications of supports and services necessary.

Involvement in the Planning Process

Student	Parents/ Caregivers	Instructional Team	The Service Worker	Questions for Parents
should always be part of the planning process should attend meetings, voice concerns should contribute ideas and preferences as to where to live, kinds of work interests and what to do during leisure time	let others know to what degree they wish to participate in the planning process attend meetings, voice concerns and preferences provide input into the individual's and family needs explore available service options visit agencies that seem suitable select the best possible placement provide informal home and community training	prepares students for adult opportunities by providing a functional and community-based school program initiates the transition process and coordinates the development of the plan encourages family members to participate informs parents of alternatives available to student upon graduation provides parents with information about what to look for in an agency and how to compare services identifies referral needs and ensures that referrals are made	attends meetings provides information about agencies and services to families and others assists families with Assured Income for the Severely Handicapped (A.I.S.H.), guardianship and trusteeship issues provides information and assistance for the development of individualized service plans shares the responsibility for referrals accompanies families on agency visits provides follow-up once the individual has graduated from school	Will this agency meet my child's needs? Is their philosophy similar to ours? Is the agency committed to community-based programs? What are the admission criteria? Is there a waiting list? How long? What qualifications do staff have? To what extent are family members involved? What are the costs or fees? What disciplinary action does the agency use? How long does follow-up/support of the vocational agencies last?

Suggestions for Parents[10]

When Enrolling a Student in Elementary School	When Enrolling a Student in Junior High School	When Enrolling a Student in Senior High School
Be aware of the child's eventual need to enter the work force. Be sure your child's individualized program plan addresses employment awareness. Be aware of off-campus work experience opportunities available in higher grades. Point out workers to your child when you are out in the community. Discuss what the worker is doing and encourage your child to think about what job he or she might like. Emphasize physical fitness and appropriate use of play time. Encourage your child to dress and groom appropriately. Provide strong positive reinforcement for even the smallest task completed. Find out about services available to adults with disabilities in your community. Also learn about work place and residential options available in other areas and compare these to options in your area.	Actively support the school's efforts to provide off-campus work experiences. See that your child's IPP addresses work skills, functional social skills, and community access skills that are taught in a variety of settings. Start meeting adult services providers to explore what options will be available for your child. Find work outside the home for your child during vacations, weekends and after school. Teach your child to budget money and to use banking facilities by providing a small allowance or payment for performing certain jobs. Take your child to movies restaurants. Let your child help with the grocery shopping, choosing his or her own clothes and make other decisions. Continue to discuss the importance and benefits of working and earning wages. Get your child involved in community-based leisure activities and, if possible, teach him or her to use the public transportation system. Make sure off-campus learning experiences are available in the high school program your child will enter.	Make sure that transitional planning is an active part of the school program. Encourage the school to place your child in a variety of work settings during the high school years. Meet with teachers, social workers and others involved in your child's life to formulate a plan. Make sure that appropriate services are in place before the student graduates (educational, ocupational and/or residential). Continue to work with your child on matters of appearance, grooming, physical fitness, budgeting, completing chores, maintaining schedules and use of community-based facilities. Encourage independence and ample opportunities for community involvement.

[10] From Transition planning for young adults with intellectual disabilities: a resource guide for families , teachers and counsellors (pp. 4–5), by Alberta Education, Education Response Centre, 1992, Edmonton, AB: Alberta Education. Adapted and reprinted with permission.

Questions for Parents to Ask

When Enrolling in Elementary School	When Enrolling in Junior High School	When Enrolling in Senior High School	When Leaving Senior High School
What is the routine upon arriving at school? What door do students enter? What is the routine at noon? Where in the school is the classroom located? Where is the washroom relative to the classroom? Are students expected to use the washroom independently? Are there rules for playground use at lunch time and recess? How much time are students expected to sit in their desks? What level of support will be available? What are the teachers' expectations regarding behaviour? What are the opportunities for interaction with non-disabled peers	What is the routine upon arriving at school? Do students use lockers? How many different classrooms will the student use? Can the student access all parts of the building? What opportunities does the school provide for in-school and community work experiences? Are there between-class activities with students who are not disabled? What is the usual dress of junior high students? Do students use tote bags and lunch bags? Is there a school store or vending machines? What coins are required? Are there opportunities to interact with peers? What are the expectations regarding behaviour? Are there teacher-specific routines the student should learn before starting school?	What are the key locations in the building? Will the student be able to access key locations? What opportunities for off-campus learning experience are available in the community? Are there food services available in the school? What is the routine of the cafeteria? What extra-curricular activities are available? Does the student have access to community recreational facilities? What activities are available at noon hour and after school?	Where will the individual be living? With whom will the individual be living? What will the individual be doing during the day? What will the individual be doing during leisure time?

Tips For Sending and Receiving Teachers

An effective method for providing continuity in programming is communication between the student's current teacher and the receiving teacher. Tips for sending and receiving teachers are listed below:

Sending Teachers

- Ensure that all current and relevant information is in the student's cumulative record (updated IPPs, most recent progress report, assessment reports, work samples).
- Where possible, contact the student's receiving teacher prior to the year end or transfer date. Share information regarding the resources used, strategies for teaching and/or managing behaviour and the amount of individual help the student received.
- Gain as much information as possible about the new program in order to help prepare the student for the move.
- Encourage parents to visit the classroom in advance.

Receiving Teachers

- Check current documents in the cumulative record, most importantly the IPP.
- Contact the student's previous teacher to obtain information
- If possible, visit the student at previous school.
- Invite the student to visit the new school in advance. Set up a tour of the school and some time in the classroom. Introduce the student to some of the school staff.

Student Activities

Listed below is a sampling of activities to help students prepare for smooth transitions to new programs and environments.

- Have students choose samples of work from various subject areas to share with the receiving teacher. The students should comment in writing (scribed if necessary) why they have chosen an item and what they feel it tells about their skills.
- Encourage students to outline, in writing, areas of educational need. If necessary, they can respond orally and have the responses scribed. The teacher or teacher aide should help the students but not dictate what is needed.
- Have students create a collage or video of themselves involved in an activity in which they feel comfortable.
- Have students share books they have created including activities they have been involved in and accompanying pictures illustrating IPP goals and how they were integrated in the school program.
- Have students share reflective journals which include information on goals, why particular goals were set, what the students did when they reached a goal, responses to classroom experiences and curricula.
- Have students use computer and picture word banks to develop and answer questions, such as what they like to eat and do.
- Have students visit the new site and actually use the facilities (home economics room, shop room, operate lockers).
- Have students share a product of which they are proud: could be in art, physical education, language arts or other areas.
- Have students use one or two strategies that are particularly effective for them and share them with the receiving teacher.
- Have students write about what they like, where their strengths lie and where they experience difficulty.
- Have students tell about some aspect of their lives that is important to them, such as sharing pictures of their family or a pet.
- Have students talk about subjects or times of the day that they find most difficult.
- Have students talk about friends or individuals with whom they identify. If possible, the friend could be placed near an individual in the subsequent setting.
- Have students talk about aspects of the environment that they perceive as frightening or intimidating following a visit to the new site.
- Have students explore the neighbourhood surrounding the new site, such as parks, stores and other schools.
- Have students talk about the seating they find preferable and why.

For a listing of specific changes that a student may encounter during each transition phase refer to *Teaching Students with Learning Disabilities: Classroom Strategies*, Book 6 in the *Programming for Students with Special Needs* series.

Post-secondary Support Services

Many universities and colleges offer a variety of services, such as academic accommodations, adaptive assistance and counselling for students with disabilities. If a student with a disability is planning post-secondary training, it may be wise to contact the Student Services Department of the various institutions to find out if they provide services that are suitable to their needs. Some of the institutions offering specialized services are listed below:

Director, Post-secondary Programs
Advanced Education & Career Development
11th Fl., Commerce Place
10155 – 102 St.
Edmonton, Alberta
T5J 4L5

Counsellor
Alberta College of Art & Design
1407 – 14th Avenue NW
Calgary, Alberta
T2N 4R3

Counsellor
Athabasca University
Edmonton Learning Centre
2nd Fl., North Tower
10030 –107 Street
Edmonton, Alberta
T5J 3E4

Vocational Counselling
Augustana University College
Student Services
4901 – 46 Avenue
Camrose, Alberta
T4V 2RS

Interchange Deaf and Hard of Hearing Literacy Program
Alberta Vocational College
332 – 6th Avenue SE
Calgary, Alberta
T2G 4S6

Learning Support Services
Alberta Vocational College
332 – 6th Avenue SE
Calgary, Alberta
T2G 4S6

Instructor/Coordinator of Learning Disabilities
Alberta Vocational College
10215 – 108 Street
Edmonton, Alberta
T5J IL6

Artist Services Director
Banff Centre
St. Julien Road, Box 1020
Banff, Alberta
TOL OCO

Dean, Student Affairs
Concordia College
7128 Ada Boulevard
Edmonton, Alberta
T5B 4E4

Fairview College
Box 3000
Fairview, Alberta
TOH 1LO

Services to Students with Disabilities
Grant MacEwan Community College
10700 – 104 Ave.
Edmonton, Alberta
T5J 4S2

Special Needs Counsellor
Grande Prairie Regional College
10726 – 106 Avenue
Grande Prairie, Alberta
T8V 4C4

Counsellor
Lakeland College
BAG 5100, Vermilion Campus
Vermilion, Alberta
TOB 4MO

Lethbridge Community College
3000 College Drive South
Lethbridge, Alberta
T1K 1L6

Student Services
Medicine Hat College
299 College Drive SE
Medicine Hat, Alberta
T1A 3Y6

Coordinator, Services for Students with Disabilities
Mount Royal College
4825 Richard Road SW
Calgary, Alberta
T3E 6K6

Coordinator
Services to Disabled Students
N.A.I.T.
11762 – 106 Street
Edmonton, Alberta
T5G 2R1

Coordinator
Health Services
Olds College
4500 – 50 Street
Olds, Alberta
T4H 1R6

Student Services Advisor
Disabled Student Services
Red Deer College
Box 5005
Red Deer, Alberta
T4N 5H5

Counsellor, Students with Disabilities
Advising Centre for Counselling and Employment Services
Room 128, Heritage Hall
S.A.I.T
1301 – 16 Avenue N.W.
Calgary, Alberta
T2M OL4

Director, Office of Services for Students with Disabilities
Room 300, Athabasca Hall
University of Alberta
Edmonton, Alberta
T6G 2E8

Director, Student Resource Centre
Coordinator, Disability Resource Team
Room 260, MacEwan Student Centre
The University of Calgary
2500 University Drive NW
Calgary, Alberta
T2N 1N4

Coordinator Counselling Centre
Student Affairs
University of Lethbridge
4401 University Drive
Lethbridge, Alberta
T1K 3M4

Assistance

Alberta Family & Social Services
Consult telephone directory in your area.

Assured Income for the Severely Handicapped (A.I.S.H.)
This service is designed for individuals with severe disabilities who have no other sources of income.
Telephone: (403) 482–9665 Edmonton
Telephone: (403) 270–5411 Calgary
Telephone: (403) 742–7586 Central Alberta (Stettler) or call
Alberta Family and Social Services

Public Guardian Office
The public guardian provides a legal guardian for adults who are unable to care for themselves and make reasonable judgements about personal matters.
Telephone: (403) 427–0017 Edmonton
Telephone: (403) 340–5165 Red Deer
Telephone: (403) 297–3364 Calgary
Telephone: (403) 381–5648 Lethbridge

Public Trustee Office
Provides administration of estates of mentally incapacitated persons who have been declared by the courts incapable of managing their financial affairs.
Telephone: (403) 427–2744 Edmonton
Telephone: (403) 297–6541 Calgary

Section IV
Completed IPP Samples

The following student profiles and accompanying IPP samples demonstrate a range of student learning needs in a variety of school settings, from elementary to senior high school.

Essential information to be included in an IPP has been defined on page IPP.3. Formats may vary from jurisdiction to jurisdiction and between schools.

Staff should refer to the guidelines in their respective jurisdictions to create a format that best meets their needs while incorporating the essential elements.

Two blank sample formats are included on pages IPP.78–94.

Student Profiles Used in Developing Sample IPPs

I. Alvin is a Grade 9 student with behavioural needs. He is integrated full time in the regular classroom with his age appropriate peers. Alvin is experiencing mild academic delays, secondary to his behavioural difficulties. Alvin receives one-on-one counselling twice a week for 30 minutes in the areas of self-control and anticipating problematic situations. Communication between home and school occurs daily through a log book, with phone conversations as required.

II. Ivan is a student with mental disabilities who attends Greenfield High. He is a wheelchair user who is learning to travel independently within the school and community. Ivan is integrated into Grade 11 CALM, Computer Science 10, food studies and physical education. He also participates in work experience two days a week. Ivan has limited speech and relies on a communication board to express his wants and needs. Ivan's parents would like to see him work in some capacity when he finishes school. His transition plan reflects this goal.

III. Mathilde is a bright six-year-old girl integrated into a Grade 1 classroom. She is extremely sensitive and is bursting with curiosity and ideas. She is very verbal but dislikes writing. She has advanced academic skills but is immature socially. Since she acquires skills and concepts quickly, she is easily frustrated with errors made by herself and others. Mathilde will be encouraged to acquire skills in diplomacy and tolerance for frustration, while at the same time encouraged to feel a sense of challenge with "hard work" (not more work).

IV. Ashley has a severe to profound hearing loss and has recently acquired a cochlear implant. She is not currently using an FM system. Many adaptations have been made to the environment to meet Ashley's individual needs including a full-time interpreter aide and an acoustically altered classroom. A consultant for the deaf and hard of hearing visits the classroom on a regular basis.

V. Andy is a student with learning disabilities who is in Grade 4. He is functioning at the early Grade 3 level in language arts. Andy is at grade level in science, social studies and mathematics. Andy eagerly participates in oral social studies discussions where he demonstrates background knowledge of concepts. He is experiencing difficulties in the areas of written output and with organization. Since Andy has difficulty reading information at the Grade 4 level, that information is read to him by a partner. Andy's parents have been trained in paired reading and are reporting improvement in Andy's word recognition, reading comprehension and attitude toward reading.

STUDENT: Alvin	STUDENT #: 59876
PARENT/GUARDIAN: Constance TELEPHONE:	DATE OF BIRTH: June 30, 19xx
GRADE: 9	SCHOOL: Beetle Junior High School
SCHOOLS ATTENDED: Toodle Elementary School - required behavioural assistance	
DATE(S):	PROGRAM(S): Integrated Grade 9
COORDINATOR: Mr. S. Yard	
SPECIAL EDUCATION AND RELATED SERVICES (Additional School Staff/Support Personnel/Agencies): Counsellor will be involved in programming. Mrs. Glasser, teacher aide, will be assisting. Individual counselling – 30 min. – 2X/week	RELEVANT MEDICAL INFORMATION: – under care of psychologist – taking Ritalin – 5 mg 2X daily

ASSESSED LEVEL OF EDUCATIONAL PERFORMANCE:

Teacher Alert System (September 199x) – Attention Behaviour Checklist (ABC) – (pp. III 31–33) – Alvin scored higher on three sections: Appears Detached from Classroom Activities; Lacks Concentration; Dependent (requires extra assistance). These will be areas of focus. There were no serious concerns with Lacks Initiative or Oddities (idiosyncratic behaviours).

Wolf Student Behaviour Screening (WSBS) – (pp. III 71–73) Alvin showed the most difficulty in the areas of Classroom Behaviour; Relationship with Teacher and Peers (more so with peers); Social Skills and Self-Concept are somewhat better however they are still in need of improvement.

Student Self Attitude Checklist (Depression) – (pp. III 82–84) Alvin completed this and the results suggested that Alvin must be monitored in this area; information shared with the counsellor.

Behaviour Disorders Manual – (October 199x) – Identification Checklist and Summary completed (pp. 2-3 through 2-5) – the behaviour disorder rating indicated "Severe" for his temper outbursts. Appendix E completed (E-1 through E-20) – One behaviour (Social) to increase – activate Alvin's caring for animals by having him care for the class hamster. One behaviour (emotional) to decrease is Alvin's temper outbursts. The detailed plans are included in his behavioural program (located in his IPP binder).

Child Behaviour Checklist (November 199x) Clinical Range overall; External is clinical (acts out); Two scales are also in the clinical range (over 98 percentile) – Attention Problems and Aggressive Behaviour; Depression was in the normal range. Completed by teacher September 199x; scored and interpreted by school psychologist October 199x; see student record file for the report.

Gates McGinitie (October 199x) Vocabulary 52 percentile; Comprehension 38 percentile

Canada Quiet -by grade- (October 199x) Word Identification 58 percentile; Passage Comprehension 36 percentile; Arithmetic 74 percentile; Spelling 46 percentile.

Teacher Observation (Ongoing) – Alvin seems to have settled down and is able to follow most routines; compliance and peer relationships still appear to be his major struggles. He is currently supervised during lunch hour and it is working well (November 30, 199x).

AREAS OF STRENGTH:	AREAS OF NEED:
– good sense of humour – math skills at grade level – athletic – likes animals	– self control – problem solving – social – anticipating problem situations – working cooperatively – coping skills when angry and frustrated – sticking to a task – reduction of impulsive behavioural reactions
LONG-TERM GOALS:	PERSON RESPONSIBLE:
– Alvin will demonstrate the ability to identify potential problematic situations and respond appropriately.	Mr. Yard
– Alvin will interact appropriately with teachers and peers in the classroom.	Mr. Yard
– Alvin will work cooperatively with peers in the classroom.	Mr. Yard, Mrs. Glasser — teacher aide
– Alvin will demonstrate the ability to work independently and complete tasks at his instructional level.	Mr. Yard, Mrs. Glasser — teacher aide
REQUIRED CLASSROOM ACCOMMODATIONS (changes to instructional and evaluation strategies, materials and resources, facilities or equipment): – Classroom rules will be posted in each class. – A "work station" will be provided where Alvin can take a voluntary time out while remaining in the classroom. – Alvin will be given advanced notice prior to transition activities; i.e., class changes, new learning activity. – Daily communication book (home and school). – A self-monitoring strategy will be used and posted.	
PARENTAL INVOLVEMENT AND EXPECTATIONS: – involved in development of IPP – parent/student/teacher interview held in September – parents will work on Alvin's organizational skills at home – parents will notify the school of any significant changes to Alvin's routines at home	STUDENT INVOLVEMENT AND EXPECTATIONS: – parent/student/teacher interview in September to develop IPP goals

STUDENT: Alvin	DATE:	COORDINATOR: Mr. Yard	
LONG-TERM GOAL: Alvin will demonstrate the ability to identify potential problematic situations and respond appropriately.			
SHORT-TERM OBJECTIVES RELATED TO LONG-TERM GOAL	REVIEW DATES:	ASSESSMENT PROCEDURES:	RESULTS & RECOMMENDATIONS:
1. By October 15, when presented with a series of five pictures of social situations, Alvin will be able to verbally indicate what might happen next in four of the situations on five consecutive days.	October 15	– teacher/aide observation	– achieved
2. By November 30, when verbally presented with a series of three problematic situations, with two alternate solutions given for each, Alvin will be able to verbally identify the solution which will lead to the positive outcome in all three instances on eight days out of 10.	November 30	– teacher/aide observation	– achieved
3. By December 31, when verbally presented with a series of five problematic situations, Alvin will be able to state two possible actions for each and identify the likely outcome for each in four of the five situations, for five consecutive days.	December 31	– teacher aide/counsellor observation	– achieved
4. By February 15, when presented with a series of two problematic situations in a role-play format, Alvin will be able to role play a possible action which will lead to a positive outcome for both situations, eight days out of 10.	February 15	– teacher aide observation	– achieved; Alvin enjoys role playing. This strategy should be continued next term.
5 By March 30, when presented with a series of five potentially problematic classroom situations in a role-play format, Alvin will be able to role play an action which will lead to a positive outcome for four of the five situations, on five consecutive days.	March 30	– teacher aide observation	– emerging
6. By May 15, with the assistance of behavioural cues from his teacher, Alvin will be able to respond in a positive manner to potentially problematic classroom situations in nine out of 10 instances.	May 15	– teacher/aide observation	– Alvin struggles with generalizing what he has learned. This is now a counselling focus too.
7 By June 30, Alvin will be able to, without external cues, respond in a positive manner to potentially problematic classroom situations in nine out of 10 instances	June 30	– teacher observation	– achieved
LONG-TERM GOAL: Alvin will interact appropriately with teachers and peers in the classroom.			
SHORT-TERM OBJECTIVES RELATED TO LONG-TERM GOAL	REVIEW DATES:	ASSESSMENT PROCEDURES:	RESULTS & RECOMMENDATIONS:
1 By November, Alvin will label his feelings and communicate with words when anxious, frustrated or emotionally upset. Instances of aggression will be reduced 75% from baseline.	November 30	– teacher/aide observation	– achieved
2 By May, Alvin will interact appropriately with peers in an activity supervised by an aide. Instances of aggression will be reduced to fewer than two per day.	May 31	– teacher aide observation	– emerging; recommend continued training with counsellor focusing on cooperative learning

STUDENT: Alvin	DATE:	COORDINATOR: Mr. Yard	
LONG-TERM GOAL: Alvin will work cooperatively with peers in the classroom.			
SHORT-TERM OBJECTIVES RELATED TO LONG-TERM GOAL	REVIEW DATES:	ASSESSMENT PROCEDURES:	RESULTS & RECOMMENDATIONS:
1. By November, Alvin will work cooperatively with a teacher-selected partner and complete assigned tasks eight periods out of 10, within the time allotted and with program aide supervision.	November 30	– teacher observation of process and completed assignments	– achieved
2. By February, given a cooperative small-group assignment (teacher-selected peers), Alvin will work cooperatively and complete assigned tasks 85% of the time with program aide supervision.	February 28	– teacher observation of process and completed assignments	– achieved
3. By May, given the free choice of a working partner, Alvin will work cooperatively and complete assigned tasks three times out of four.	June 1	– teacher observation	– think - pair - share is not a recommended cooperative learning strategy unless a teacher aide is present
LONG-TERM GOAL: Alvin will demonstrate the ability to work independently and complete tasks at his instructional level.			
SHORT-TERM OBJECTIVES RELATED TO LONG-TERM GOAL	REVIEW DATES:	ASSESSMENT PROCEDURES:	RESULTS & RECOMMENDATIONS:
1. By September 30, when given material at his instructional level, Alvin will be able to work independently for at least two minutes, when cued by his teacher during four work periods (10 minutes each) out of five.	September 30	– teacher observation of product (completed assignments)	– achieved – Alvin responded well to cues
2. By October 15, when given material at his instructional level, Alvin will be able to work independently for at least five minutes, without verbal cues from his teacher and without interrupting others during four work periods (10 minutes each) out of five.	October 15	– teacher aide observation	– achieved – the aide was required to be proximal
3. By November 30, when given material at his instructional level, Alvin will be able to work independently for at least 10 minutes, without verbal cues from his teacher and without interrupting others during eight work periods out of 10.	November 30	– teacher aide observation	– achieved – the aide was able to circulate, Alvin required less supervision
4. By January 15, when working independently at his instructional level, Alvin will complete and hand in his assignments at the conclusion of the work period for 10 consecutive work periods.	January 15	– teacher/teacher aide observation	– Alvin is having difficulty here; the IPP team has decided that these last two objectives must be broken down and rewritten
5. By March 30, when working independently at his instructional level, Alvin will complete and hand in his assignments, to a level of C or better, at the conclusion of the work period for 15 consecutive work periods.	March 30	– teacher/teacher aide observation; grading of assignments	

ADDITIONAL INFORMATION: Alvin has just started a trial of stimulant medication. The physician has requested feedback from the school every two weeks with respect to his ability to pay attention. It was agreed that the Attention Deficit Disorder with Hyperactivity Checklist (Teacher Alert System; pg. 35) would be used to monitor his behaviour.

TRANSITION PLANS (year end recommendations, suggestions regarding methodology, materials, strategies that were particularly effective):

- timetabling for Alvin's Grade 10 program will take place after spring break. Efforts will be made to give Alvin one teacher for math/science and one teacher for language arts/social studies.
- meetings between Alvin's Grade 9 and Grade 10 teachers, along with Mr. Glasser will take place in May.
- Alvin and his parents have requested an orientation visit. This site visit will take place after the May meeting. Mr. Glasser will accompany them.
- a year-end case conference including Alvin's psychologist, parents, school counsellor, teachers (present and receiving) and administrator will be held in June to set some direction for the next school year.
- Alvin's timetable will reflect a balance with respect to course load each semester; he will take a reduced load, having a spare each semester during which he can access some individual support.

COMMENTS:

Signatures of IPP team members:

Parent/Guardian _____

Student (if applicable) _____

Principal or Designate _____

Teacher(s) _____

_____

Other team members _____

_____

DATE: _____

Sample II — Ivan — Individualized Program Plan

STUDENT: Ivan
BIRTH DATE: November 1, 19xx
TEACHER RESPONSIBLE FOR OVERALL PROGRAM: Mr. Elliott

STUDENT I.D.#: 798149
PARENT/GUARDIAN:
REVIEW DATES: December/March/June

DATE: September 20, 19xx
TELEPHONE:
LEARNING GROUP/GRADE: special ed./integrated Grade 11

SPECIAL EDUCATION AND RELATED SERVICES (Additional School Staff/Support Personnel/Agencies)	SCHOOL HISTORY	RELEVANT MEDICAL INFORMATION
Teacher Aide: Mr. Hall, Speech Therapist: Mrs. Smart, Occupational Therapist: Mr. Ho, Physiotherapist: Miss Eyre.	– integrated in neighbourhood school since Grade 4	– epilepsy; medication required at noon

AREAS OF STRENGTH (Talents, Skills, Interests)	AREAS OF NEED
– good natured – eager to please – good sense of direction – enjoys computer	– independent mobility – work skills – increased independence in daily routines – refine natural communication skills – refine communication abilities through the use of pictures
ASSESSED LEVEL OF EDUCATIONAL PERFORMANCE (as indicated by teacher observation, interview, videotaping, informal and formal testing) Language Functioning. (September 199x) Silvaroli Word List – all primer words; 80% of Grade 1 words, 55% Grade 2 words. Informal classroom and community observations, recognizes basic sight words in context and environmental print. Mathematics: (September 199x) Key Math – Grade 2. Math logs, cloze tests and graded student work indicate Ivan can count and write numbers to 100, classify shapes in context, use manipulatives, add and subtract whole numbers without grouping, tell time to the quarter hour, recognize coins and make purchases to 25 cents. Can read dates on a calendar. Peabody Picture Vocabulary Test – Revised – (November 199x) Receptive language skills at the 12th percentile; a relative strength for him. Teacher Alert System – (Section III D – Student Educational Assessment Screening [SEAS]) – pp. III 49 through III 68. Although designed for younger children, sections on Language Development and Self-Help were administered. Again receptive language is stronger than expressive and Self-Help skills clustered around the eight year-old level. Teacher Observation (Ongoing) – With respect to functional life skills, Ivan can feed himself independently. He is mobile in his wheelchair and functions well with his circle of friends. His receptive language skills are a relative strength and he can follow all one-step directions and some two-step commands. He is learning the values of coins, however he cannot make change, but does understand more and less.	STUDENT INVOLVEMENT PARENT INVOLVEMENT – parents will generalize use of pictures to home environment – parents would like increased opportunities for peer interaction and a focus on the development of basic work skills
REQUIRED CLASSROOM ACCOMMODATIONS (changes to instructional and evaluation strategies, materials and resources, facilities or equipment): – daily communication book between home and school – make use of student areas of interest to encourage use of communication board – increased exposure to computer technology – instruction needs to be provided in a variety of ways (hands-on, visual, multi-sensory) across a variety of teaching situations – familiarize with school, classroom routines before starting formalized instruction in the routine – photographs will be taken during the demonstration of activities for future staff reference – list of pictures Ivan is consistently able to identify will be compiled throughout the year	MATERIALS AND RESOURCES – Pictorial representations of common signs and labels – Talking pictures – rebus form of environmental pictures

LONG-TERM GOAL: Ivan will wheel his chair to a variety of locations in the school and community.			
Short-term Objectives Related to Long-term Goal (Observable/Measurable):	Review Dates:	Assessment Procedures:	Results and Recommendations:
1 By September 30, using a series of 10 photographs of common locations in the school, Ivan will, upon request, point to the named location eight times out of 10, on three consecutive days.	September 30	– teacher observation	– achieved
2. By November 15, when presented with a series of 10 photographs of common locations in the school, Ivan will, when wheeled to eight different school locations per day, point to the correct photograph six of eight times, on three consecutive days.	November 15	– teacher aide observation	– achieved
3 By December 31, drawing from the 10 common locations in the school, Ivan will, when requested (five per day) move to the correct location four times on five consecutive days.	December 31	– teacher aide observation	– achieved; however, it does take him a long time to move about the building. Additional goals may include time with accuracy
4 By February 15, using a series of four photographs of common locations in the community, Ivan will, upon request, point to the named location 16 times out of 20, on three consecutive days.	February 15	– teacher aide observation	– achieved
5 By March 30, when presented with a series of four photographs of common locations in the community, Ivan will, when wheeled to four different locations per day, point to the correct photograph on four days out of five.	March 30	– teacher aide observation	– achieved
6 By June 1, drawing from the four common locations in the community, Ivan will, when requested (one per day) move to the correct location on 10 consecutive days.	June 1	– teacher aide observation	– achieved
LONG-TERM GOAL: Ivan will be able to communicate choices.			
Short-term Objectives Related to Long-term Goal (Observable/Measurable):	Review Dates:	Assessment Procedures:	Results and Recommendations:
1 By November, Ivan will make choices in menu planning by pointing to one item in each food group with no errors or duplications/five trials per week.	November 30	– teacher observation	– achieved
2 By January, Ivan selects the program he wants from a list of 10 items on a computer program menu (80% accuracy/four trials per week).	January 31	– teacher observation and data collection	– achieved
3 By May, Ivan will choose two of five students he wants to work with (four out of five occasions/four trials per week).	May 31	– teacher observation and data collection	– achieved; although he usually selects the same students, he tends to not interact with them, an additional objective should be selected in this regard
4 By June, Ivan will select desired school location when provided with five pictures (four different locations per day on four consecutive days).	June 15	– teacher observation and data collection	– achieved

LONG-TERM GOAL: Ivan will demonstrate a working knowledge of common signs.			
Short-term Objectives Related to Long-term Goal (Observable/Measurable)	Review Dates:	Assessment Procedures:	Results and Recommendations:
1 By October 15, when presented with a series of eight signs that direct; e.g., pull, keep left, Ivan will point to the correct sign when verbally requested on five consecutive days.	October 15	– teacher aide observation	– achieved
2 By December 15, when presented with a series of 20 warning and safety signs, e.g., emergency exit, poison, no smoking, Ivan will point to the correct sign when verbally requested on four out of five days.	December 15	– teacher aide observation	– achieved
3 By January 30, Ivan will be able to match pictorial representations of the 28 signs to signs in the school building, with 20 matches on three consecutive days	January 30	– teacher & aide observation	– achieved; Ivan particularly enjoys this, especially in a game format.
4 By March 15 when presented with a series of 20 community signs; e.g., mail, restroom, use crosswalk, Ivan will point to the correct sign when verbally requested on five consecutive days	March 15	– teacher aide observation	– achieved
5 By April 30, Ivan will be able to match pictorial representations of the 20 signs to signs in the community, with 16 matches on three consecutive days	April 30	– teacher aide observation	– emerging; part of the difficulty is getting around in the community to see enough signs in the time available, perhaps his parents could assist with this objective
6 By June 30, Ivan will demonstrate an understanding of directional, safety and community signs by complying with the intent of 90% of the signs he encounters on any given day.	June 30	– teacher & aide observation	– achieved
LONG-TERM GOAL: Ivan will explore possible career options.			
Short-term Objectives Related to Long-term Goal (Observable/Measurable)	Review Dates:	Assessment Procedures:	Results and Recommendations:
1 By December Ivan will compile a picture portfolio of his strengths, interests and areas requiring development, receiving input from friends, family members and staff. Ivan will be offered choices of pictures and will select among choices given every time offered.	December 30	– checklists – teacher observation – video	– achieved, with significant input from his family
2 By January, Ivan will explore future career choices (through print and non-print media, visits by guest speakers/potential role models, work-site visits) Using his portfolio information he will develop a plus-minus log of the career choices	January 30	– teacher observation – portfolio review	– emerging, this is taking much longer than anticipated, the objective needs to be revised; perhaps a more "hands-on" approach at various potential work sites would assist
3 By February Ivan will set up an appointment with school guidance and vocational counsellor to assist him in selecting five vocational options to explore during work experience, based on his portfolio	February 15	– counsellor observation – portfolio review	– achieved

LONG-TERM GOAL: Ivan will demonstrate an understanding of food safety and safe handling of kitchen utensils.			
Short-term Objectives Related to Long-term Goal (Observable/Measurable).	Review Dates:	Assessment Procedures:	Results and Recommendations:
1. By November, given a verbal prompt, Ivan will wash his hands before handling food without resistance each and every time	November 30	– teacher/aide observation – checklists	– achieved; Ivan will sometimes not dry his hands properly leading to chaffing; if additional hygiene goals are added more detailed procedures may be required
2. By January, Ivan will demonstrate hygienic washing of pots and pans, using a rinse cycle and the loading of a dishwasher completing the steps correctly given verbal prompts only, 16 times out of 20.	January 30	– teacher/aide observation – checklists	– achieved
3. By February, Ivan will correctly point to the requested picture of various kitchen utensils on his picture board, given the utensil name or the utensil function accurately eight times out of 10.	February 15	– teacher/aide observation – checklists	– achieved
4. By April, Ivan will work cooperatively and safely with his assigned kitchen group. Criteria: 80% completion of peer and self-evaluation checklist over five cooking sessions.	April 15	– teacher observation – checklist	– not achieved; it is the completion of the checklist that is presenting the difficulty. This objective needs to be revised
LONG-TERM GOAL: Ivan will gain independence in simple routines.			
Short-term Objectives Related to Long-term Goal (Observable/Measurable):	Review Dates:	Assessment Procedures:	Results and Recommendations:
1. By November, Ivan will get his own apron and join his cooking group, at each occasion, without prompting.	November 30	– teacher observation	– achieved
2. By January, Ivan will look at his picture schedule and point to what comes next (eight times out of 10/eight trials per day).	January 31	– teacher observation	– achieved
3. By April, Ivan will sequence 10 pictures illustrating preparation for school (nine times out of 10 on three consecutive days).	April 30	– teacher observation	– achieved
4. By June, Ivan will complete his work routine with a maximum of four verbal cues per routine (total compliance/five trials per week).	June 15	– teacher observation	– emerging; occasionally he still requires physical prompts; if not mastered by June 30 rewrite for next year.

TRANSITION PLANS (year end recommendations, suggestions regarding methodology, materials, strategies that were particularly effective)

- A case conference must be initiated mid year to ensure that the school is supporting the direction Ivan's parents wish to take with their son.
- Mr. Elliott will set up visits to agencies providing supported employment. He will accompany Ivan and his parents on these visits. Ivan's parents will put Ivan's name on selected waiting lists.
- In scheduling for Ivan's Grade 12 year, the amount of work experience will increase from two days a week to three days.
- After spring break, transition to the adult service provider will begin. The job coach will observe Ivan and his aide during work experience to gain an understanding of Ivan's strengths and needs.
- Mr. Elliott will also assist parents in exploring supported independent living arrangements for Ivan. This will begin after spring break, once the supported employment agency is in place Wheelchair accessibility is an issue.

Signatures of IPP team members:

Parent/Guardian _____

Student (if applicable) _____

Principal or Designate _____

Teacher(s) _____

_____

Other team members _____

_____

DATE: _____

Sample III

Mathilde

Individualized Program Plan

STUDENT: Mathilde
BIRTH DATE: June 30, 19xx
TEACHER RESPONSIBLE FOR OVERALL PROGRAM: Mrs. F. Suratess

STUDENT I.D.#: 56946572
PARENT/GUARDIAN:
REVIEW DATES: November/March/June

DATE: September 25, 19xx
TELEPHONE:
LEARNING GROUP/GRADE: Integrated Gr.1 Class

SPECIAL EDUCATION AND RELATED SERVICES
(Additional School Staff/Support Personnel/Agencies)
Language Arts — Mrs. Graylock, Consultant — Mr. Knoughetal, Psychologist — Dr. G. Sodui

SCHOOL HISTORY
Elementary at Meadowbrook

RELEVANT MEDICAL INFORMATION
asthma, allergy to eggs and peanuts

AREAS OF STRENGTH (Talents, Skills, Interests)
- enthusiastic about learning
- learns quickly and is interested in everything
- good vocabulary, strong memory
- good sense of humour
- strong imagination, fluency of ideas and a fund of general knowledge
- exhibits advanced reading comprehension and vocabulary through her articulate speech
- work demonstrates good understanding of basic mathematical skills
- displays interest in and an understanding of science and the scientific method

AREAS OF NEED
- has difficulty dealing with errors when she makes them
- seeks attention and control of situations
- needs to be challenged in all academic areas
- needs to develop self-direction
- needs to reconcile her emotional intensity with her intellectual development
- working cooperatively
- coping skills when angry and frustrated
- reduction of impulsive behavioural reactions

ASSESSED LEVEL OF EDUCATIONAL PERFORMANCE
Diagnostic Reading Program (DRP) September 199x) Independent Level: end Grade 2; Instructional Level: mid-Grade 3; Frustration Level: early Grade 4.

Gates McGinitie (October 199x) Vocabulary 97 percentile; Comprehension 95 percentile

Key Math (October 199x) Overall grade equivalent 2.8. Mathilde showed advanced skills in the areas of basic facts (including division). Her math concepts are also advanced. Mathilde showed average abilities in geometry and money

Wechsler Intelligence Scale for Children – III (WISC-III) (November 199x) See student record file for report. Strengths were numerous, especially vocabulary, verbal reasoning and abstract thinking. Her processing speed and copying skills were at the upper end of the average range.

Teacher Observation (Ongoing) Mathilde is functioning at above grade level in all academic areas. Mathilde reads chapter novels of a second and third grade level, with clear factual comprehension. Her written work is average for a Grade 1 student. She is an articulate speaker with a vocabulary similar to that of a nine-year-old. She shows signs of impulsivity in her thinking skills and interactions. Mathilde has a keen interest in science and demonstrates a superior knowledge of general facts. Social studies inquiry skills are advanced while her verbal explanations are at grade level. Fine and gross motor skills are age appropriate (November 199x)

STUDENT INVOLVEMENT
- parent/student/teacher interview in September to develop IPP goals
- will provide feedback with respect to enjoyment of academic tasks
- will have opportunities to work with a variety of peers in various settings

PARENT INVOLVEMENT
- involved in development of IPP
- parent/student/teacher interview held in September
- will use questions rather than making suggestions in helping Mathilde with her school work
- will use thinking guides provided by the teacher when reading and talking about stories
- will monitor Mathilde's social-emotional development as the year progresses

REQUIRED CLASSROOM ACCOMMODATIONS (changes to instructional and evaluation strategies, materials and resources, facilities or equipment)
- Mathilde needs to hear the reason for rules
- encourage her to take risks
- encourage elaboration, especially with the written process
- get her to talk about her feelings and others' point of view
- consider her sensitivity when providing direction
- ensure concrete manipulatives are available for project work beyond the Grade 1 level

LONG-TERM GOAL: Mathilde will apply conventions of print in her writing.			
Short-term Objectives Related to Long-term Goal (Observable/Measurable)	Review Dates:	Assessment Procedures	Results and Recommendations
1 By November, Mathilde will accurately use an editing key on nine out of 10 attempts	November 30	– teacher/aide observation – student completed checklists	– achieved
2 By January, Mathilde will correctly punctuate (end marks) her written work with 90% accuracy	January 30	– teacher/aide observation – anecdotal records	– achieved
3 By June, Mathilde will accurately punctuate her written work at all times.	June 30	– teacher/aide observations – anecdotal records	– emerging. Mathilde does not do this at all times. We will rework the goal with a different criteria and specify the punctuation used
LONG-TERM GOAL: Mathilde will demonstrate her abilities as an independent learner of science.			
Short-term Objectives Related to Long-term Goal (Observable/Measurable)	Review Dates:	Assessment Procedures	Results and Recommendations
1 By October 1, upon request, Mathilde will be able to state and orally define the six components of a scientific experiment on eight of 10 requests	October 1	– teacher observation	– achieved
2 By November 30, when presented with a brief outline of two simple experiments, Mathilde will be able to explain how each experiment could be conducted, by verbally identifying all six components for at least one of the experiments	November 30	– teacher observation	– achieved
3 By January 15, given a series of three simple experiments Mathilde will be able to conduct at least two of the three experiments demonstrating the six component parts	January 15	– teacher observation – observation of product	– achieved, she had some difficulty with the apparatus set up
4 By March 1, when presented with a series of five problems related to life science, Mathilde will be able to locate information in the library, using various media, and design a project using the six parts of a scientific experiment, for at least three of the problems.	March 1	– teacher observation – librarian assistance	– emerging, Mathilde enjoys the video medium
5 By May 15, using the experiments developed in the March 1 objective, Mathilde will be able to successfully conduct two of the five experiments, demonstrating the six parts of an experiment	May 15	– teacher observation – observation of product	– achieved

LONG-TERM GOAL: Mathilde will play and work appropriately with peers.			
Short-term Objectives Related to Long-term Goal (Observable/Measurable):	Review Dates:	Assessment Procedures:	Results and Recommendations:
1 By October, Mathilde will verbally and in actions show pride in her accomplishments (school work) 80% of the time.	October 30	– teacher observation, sociogram, anecdotal records and videotape	– not achieved; the objective was too complex and needs to be broken down separating self-talk from risk-taking behaviour and timelines need to be extended
2. By November, Mathilde will demonstrate appropriate classroom etiquette 80% of the time.	November 30	– teacher observation checklist	– achieved; Mathilde is fitting well into the class
3 By January, Mathilde will make at least three positive comments during a 15 minute classroom discussion on eight out of 10 occasions.	January 31	– teacher observation checklist	– achieved
4 By June, Mathilde will make positive comments about herself when she makes an error; on every occurrence.	June 30	– teacher observation, anecdotal records and video-tape	– achieved
LONG-TERM GOAL: Mathilde will set realistic expectations for herself as a Grade 1 student.			
Short-term Objectives Related to Long-term Goal (Observable/Measurable):	Review Dates:	Assessment Procedures:	Results and Recommendations:
1 By January, Mathilde will verbally describe the four steps of her personal goal setting strategy.	January 31	– teacher observation – checklist for parents to use	– achieved
2. By March, Mathilde will set one-week goals for herself in mathematics and science accurately on half of the time	March 15	– teacher observation	– achieved
3 By June, Mathilde will set one-month goals for herself in language arts with 80% accuracy	June 15	– teacher observation – class discussions	– achieved

TRANSITION PLANS (year end recommendations, suggestions regarding methodology, materials, strategies that were particularly effective)

- Contact between Mrs. Suratess and next year's teacher will begin after spring break. Mathilde will visit the new classroom to find out what behavioural and academic expectations will be in place
- Year-end conference with Mathilde's sending teacher, parents and her new teacher will be set up for June.
- Mathilde truly enjoys oral presentations.
- Mathilde has learned to set reasonable short-term goals when an oral presentation is the culminating activity.

Signatures of IPP team members:

Parent/Guardian _____

Student (if applicable) _____

Principal or designate _____

Teacher(s) _____

_____

Other team members _____

_____

_____

Date: _____

Sample IV — Ashley — Individualized Program Plan

STUDENT Ashley
BIRTH DATE: May 18, 19xx
TEACHER RESPONSIBLE FOR OVERALL PROGRAM: Mrs Taylor

STUDENT I.D.#: 896147
PARENT/GUARDIAN:
REVIEW DATES: Dec./March/June

DATE: September 19, 19xx
TELEPHONE:
LEARNING GROUP/GRADE: Integrated fourth grade class

SPECIAL EDUCATION AND RELATED SERVICES (Additional School Staff/Support Personnel/Agencies)

Interpreter/Program Aide, Speech and Language Therapist, Audiologist, Psychologist

SCHOOL HISTORY

Has attended segregated class at Lendrum since enrolling in school.

RELEVANT MEDICAL INFORMATION

Cochlear implant acquired two years ago.

AREAS OF STRENGTH (Talents, Skills, Interests)

- very social with peers
- leadership qualities
- sign language communication (ASL) & signed English
- desire to please
- ability to summarize stories
- athletic

AREAS OF NEED

- paying attention to teacher and other students
- written language
- academic work
- reading comprehension and inferring abilities
- communication
- number recognition
- work skills
- increased independence in daily routine

ASSESSED LEVEL OF EDUCATIONAL PERFORMANCE

(as indicated by teacher observation, interview, informal and formal testing)

Kaufman Test of Educational Achievement:
Reading Decoding: standard score = 87; percentile = 19; grade equivalent = 3.0
Reading Comprehension: standard score = 85; percentile = 16; grade equivalent = 2.8
Mathematics Applications: standard score = 85; percentile = 16; grade equivalent = 2.5
Mathematics Computation: standard score = 81; percentile = 10; grade equivalent = 2.9

Peabody Picture Vocabulary Test: standard score = 74; percentile = 47; grade equivalent = seven years, three months

Expressive One Word Picture Vocabulary Test: standard score = 78; percentile = 47; grade equivalent = seven years, four months

Science: has completed a modified Grade 3 program
Social Studies: has completed a modified Grade 3 program

STUDENT INVOLVEMENT

- attended student/parent/teacher interview; participated in IPP conferences

PARENT INVOLVEMENT

- involved in development of IPP
- student/parent/teacher interview held in September

REQUIRED CLASSROOM ACCOMMODATIONS (changes to instructional and evaluation strategies, materials and resources, facilities or equipment):

- provide preferential seating
- provide instruction in a variety of ways (hands-on, visual, multi-sensory)
- have a well-lighted teaching area
- give extra time for tests
- use an interpreter during classroom instruction and discussion
- use a homework assignment book
- improve vocalization and/or correct articulation of new vocabulary in the therapy situation and facilitate carry-over of speech skills into everyday speech in the classroom

LONG-TERM GOAL: Ashley will synthesize information to her level of understanding.			
Short-term Objectives Related to Long-term Goal (Observable/Measurable):	Review Dates:	Assessment Procedures:	Results and Recommendations:
1 By November, Ashley will retell main ideas from readings at the beginning Grade 3 level, responding using speech and signs in three or more grammatically correct sentences in two out of three trials.	November 30	– teacher prepared reading comprehension questions	– achieved
2 By March, Ashley will summarize ideas and information related to readings on a specific topic. Ashley will read a story from her *Impressions Series* reader and will provide, in writing, the main idea and three key facts in two out of three trials.	March 25	– student response in writing using workbook	– achieved, if further goals are required here one could be developed for written fluency
3 By June, Ashley will be able to draw conclusions by relating what she knows to new information and ideas. She will respond using speech and signs in two out of three trials in a classroom setting.	June 15	– classroom observation using teacher based criteria	– achieved
LONG-TERM GOAL: Ashley will demonstrate an understanding of operations with decimals.			
Short-term Objectives Related to Long-term Goal Observable/Measurable	Review Dates:	Assessment Procedures:	Results and Recommendations
1 By November, Ashley will place single and double digit decimal numbers correctly on a place value chart (75% accuracy)	November 30	– Math Diagnostic Cumulative Review and teacher prepared tests	– achieved
2 By February, Ashley will add and subtract two and three digit decimal numerals (90% accuracy)	February 28	– Math Diagnostic Cumulative Review and teacher prepared tests	– achieved
3 By June, Ashley will multiply and divide two and three digit decimal numerals (75% accuracy/five trials)	June 15	– Math Diagnostic Cumulative Review – teacher prepared tests	– achieved

LONG-TERM GOAL: Ashley will express her understanding of social studies concepts through oral and visual presentations.			
Short-term Objectives Related to Long-term Goal (Observable/Measurable):	Review Dates:	Assessment Procedures:	Results and Recommendations:
1. By November, Ashley will double over baseline data, her on-topic comments during social studies discussion periods.	November 30	– teacher observation and collection of data and feedback from program aide	– achieved
2. By February, Ashley will double over November's baseline data, her on-topic comments during social studies discussion periods.	February 28	– teacher observation and collection of data and feedback from program aide	– achieved
3 By June, Ashley will make an oral and visual presentation to her class about services in the community with no extraneous information (80% accuracy).	June 15	– teacher observation	– achieved
LONG-TERM GOAL: Ashley will know procedures for investigating relationships between living and non-living things.			
Short-term Objectives Related to Long-term Goal (Observable/Measurable):	Review Dates:	Assessment Procedures:	Results and Recommendation:
1 By November, Ashley will write two testable hypotheses about living things and two testable hypotheses about non-living things using the word *because*.	November 30	– teacher observation – diagnostic test in science	– achieved
2. By February, Ashley will plan an investigation comparing two living things verbally or with sign language outlining the procedure.	March 1	– teacher observation	– achieved
3 By June, Ashley will write an hypothesis, plan and carry out an investigation and complete a learning log about a non-living thing.	June 15	– learning log	– emerging; Ashley has difficulty completing the learning log independently

LONG-TERM GOAL: Ashley will maximize her use of residual hearing through amplification.			
Short-term Objectives Related to Long-term Goal (Observable/Measurable)	Review Dates:	Assessment Procedures:	Results and Recommendation:
1 By November, Ashley will discriminate between the presence and absence of a spoken syllable or word. Ashley will respond correctly on 50 consecutive presentations.	November 30.	– teacher/aide observation and use of check list	– achieved
2 By March, Ashley will discriminate between familiar environmental sounds which are interrupted (car horn) versus continuous (vacuum cleaner) 80% of the time.	March 25	– teacher/aide observation and use of check list	– She can differentiate as per the objective, however, she is not always able to identify the sound itself. Perhaps another goal in this area would be beneficial

TRANSITION PLANS (year end recommendations, suggestions regarding methodology, materials, strategies that were particularly effective)
arrangements have been made to keep Ashley with the same teacher for next year

Signatures of IPP team members:

Parent/Guardian _____

Student (if applicable) _____

Principal or designate _____

Teacher(s) _____

Other team members _____

_____

Date: _____

Sample V — Andy — Individualized Program Plan

Student Information **Date:**

Student I.D.# 619551 Sex: M

Name: Andy

BIRTH DATE: December (Month) 15 (Day) 199x (Year)

Address: 1620 Elm Drive
Anywhere, AB
T5K 1X9

Telephone No.: 712–1212

Parent/Guardian: Joan and Henry

School: Bertwick School Grade/Learning Group: 4

Relevant Medical Information

Andy suffers from airborne allergies. He tends to miss a fair bit of school, especially in the fall.

He was assessed by his physician (March 199x) as having mild attention difficulties; no medications were prescribed.

IPP Team Members	Position

Additional Information

Special Education and Related Services (additional school staff/support personnel/agencies)

Andy has access to teacher aide support for one hour per day.

Andy attends a self-esteem group run by the school counsellor (once per week for six weeks) in the February-March time frame.

Areas of Strength

- polite
- cooperative
- orally expresses ideas clearly
- positive

Areas of Need

- word recognition
- reading comprehension
- processing speed; writing
- organization
- self-esteem

Required Classroom Accommodations (changes to instructional and evaluative strategies, materials and resources, facilities or equipment)

- extended time limits on written exams
- opportunity to have oral exams
- assistance with note-taking and/or providing Andy with a set of notes
- paired reading strategies (also being done at home 10-15 minutes/day - five days per week)
- use of visual materials to assist Andy in learning
- early warning with respect to transition times
- homework/communication book
- Andy will be given specific instruction in the areas of keyboarding and word processing

Assessed Level of Educational Performance; e.g., teacher observation, interview, informal and formal testing		
Date Given	Tests	Results
March 3, 199x	Wechsler Intelligence Scale for Children, Third Edition	Andy showed weaknesses in vocabulary and general knowledge and strengths in non-verbal reasoning and visual sequencing. His processing speed was significantly weak, as were his copying skills (see student record file for the report).
March 3, 199x	Bender Visual Motor Gestalt Test	Administered by school psychologist and indicated a 1.5 year delay in visual motor skills (see student record file for the report).
Sept. 12, 199x	Teacher Alert System (learning disabilities checklist)	Andy had many of the characteristics listed on this checklist
Sept. 29, 199x	Diagnostic Reading Program	Independent Level – mid Grade 2; Instructional Level – early Grade 3; Frustration Level – late Grade 3.
October 5, 199x	Canada Quiet (by grade)	Word Identification – 31 percentile; Passage Comprehension – 42 percentile; Arithmetic – 69 percentile; Spelling – 16 percentile.
October 17, 199x	Teacher Observation	Although quite eager and willing in the language arts area, Andy's proofing and language mechanics skills are quite weak.

Summary of Assessed Level of Educational Performance

The WISC-III results show a deficit in the copying and writing areas. As well, Andy tends to work slower than others his age. His reading ability shows about a year and a half delay. Andy does better when there is a context (comprehension) than when he has to read words in isolation (decoding). Language mechanics also present him some difficulty. Andy has no difficulties in the mathematics area, however this year as problem solving increases, his weaker reading skills may depress his math mark. This needs to be monitored and necessary accommodations made.

Long-term Goal: Andy will improve his reading comprehension skills to a Grade 4 level.			
Short-term Objectives Related to Long-term Goal (observable/measurable)	Review Dates	Assessment Procedures	Results and Recommendations
By October 31, when reading (silently) a series of short passages at his instructional level, Andy will be able to verbally recall three facts in four of five passages.	October 31	Teacher will provide passages and teacher aide will measure criteria	– achieved
By December 31, when reading (silently) a series of short passages at his instructional level, Andy will be able to verbally recall the main idea in four of five passages.	December 31	Teacher will highlight main idea in provided passages and teacher aide will measure criteria	– achieved; Andy did well mastering this objective on Dec. 15
By February 28, when reading (silently) a series of short passages at his instructional level, Andy will be able to verbally identify the main character's feeling(s) in four of five passages.	February 28	Teacher will identify feelings in provided passages and teacher aide will measure criteria	– achieved
By May 1, when reading (silently) a series of short passages at his instructional level, Andy will be able to verbally sequence the events in four of five passages.	May 1	Teacher provide passages and teacher aide will measure criteria	– achieved
By June 30, when Andy is read a series of short passages at his instructional level, he will be able to verbally predict what is likely to happen next in eight of 10 passages.	June 30	Teacher provide passages and teacher aide will measure criteria	– achieved; Andy did very well at predicting

Long-term Goal: Andy will improve his ability to edit his own written work using the COPS (Capitalization, Organization, Punctuation, Spelling) strategy.			
Short-term Objectives Related to Long-term Goal (observable/measurable)	Review Dates	Assessment Procedures	Results and Recommendations
By September 30, when asked, Andy will be able to verbally state what COPS stands for on four out of five days.	September 30	Teacher aide to measure criteria.	– achieved
By November 15, when requested, Andy will be able to verbally state three situations during the course of a school day where COPS could be used on four out of five days	November 15	Andy's teacher(s) to provide the teacher aide with appropriate examples from their area of instruction; aide to measure.	– achieved, although in some courses; e.g., math, this was not a particularly helpful strategy. Perhaps others can be implemented.
By January 31, when presented with a series of five written passages of 100 words (typical of Grade 4 work), Andy will be able to, using the COPS strategy, correct all errors in four of the five passages.	January 31	Examples to be provided; teacher observation.	– emerging; Andy understands the Organization and Capitalization; Punctuation and Spelling are harder; perhaps the use of a spelling ace would benefit him.
By April 30, when presented with his own completed written passages from various subject areas, Andy will be able to, using the COPS strategy, correct all errors on four of five exercises for six consecutive days.	April 30	Examples to be selected by Andy; teacher aide to evaluate; teacher input as necessary.	– emerging; the spelling ace has helped; punctuation continues to be an area of concern. Perhaps an objective in this area is required.
By June 1, when working independently on a writing activity, Andy will be able to demonstrate (verbally or with highlighter), upon request, how he has used the COPS strategy to edit his work on eight of 10 requests.	June 1	Teacher aide to evaluate.	– emerging; Andy has not yet begun to apply this strategy automatically.

Long-term Goal: Andy will learn and implement strategies to improve his ability to organize information across subject areas.			
Short-term Objectives Related to Long-term Goal (observable/measurable)	Review Dates	Assessment Procedures	Results and Recommendations
By October 31, when presented with a series of social studies lessons, Andy will use an idea web to organize the textual related information reviewed in eight of 10 lessons.	October 31	Teacher observation of written product.	– emerging; Andy has difficulty deciding the most important details to include in his web. Webbing should be taught as a metacognitive strategy
By December 31, Andy will, when presented with a series of projects from various subject areas, be able to break the projects down into sub-components and develop time lines for each component for four out of five projects.	December 31	Teacher observation of completed time management forms	– achieved; this worked quite well, Andy completed a time mangement form for each project. However, it was noted that Andy often neglected to complete his assignments as per the timeline he developed – add an objective in this regard (see below*)
By March 31, Andy will be using the SQ3R method in at least two subject areas when he is studying at home.	March 31	Teacher will evaluate written product upon return to school.	– not achieved; this was too complex, often Andy did not study at home; his mother did not feel skilled enough to monitor and the strategy was not taught in enough detail at school. Next year write a specific annual goal for this strategy.
*By March 1, Andy will compete the sub-components according to the timelines he develops for various projects 90% of the time.	March 1	Teacher-aide to monitor sub-components; teacher to monitor final product due date.	– achieved; note this objective was written in as a consequence of results #2

Transition Plans (recommendations, services required, strategies and materials that were effective)

A meeting between this year's teachers and next year's teachers will be conducted in May - focus on language development and metacognitive strategies.

The metacognitive strategy that was introduced showed much promise. Andy needs to be given several more strategies which will benefit him. This can be an ongoing process.

The homework/communication book was very useful in helping coordinate the home and school components of Andy's program and should be continued.

Continue to monitor decoding. This is an area of mild/moderate deficit, however Andy has made good gains this year.

Recommended that next year the strategies that were taught under the "organization" goal be made more explicit and form specific sections of Andy's IPP.

Signature of IPP Team Members (Signature indicates that you understand the IPP)

Parent/guardian	_____	Other team members
Student (if applicable)	_____	_____
Principal or designate	_____	_____
Teacher(s)	_____	_____
	_____	_____
	_____	_____

Annual Review and Recommendations

Goals Achieved

- Reading Comprehension - Andy did well, he had no difficulty with the literal comprehension. His predicting skills are good. It appears that his instructional level has increased as the passages were progressively more difficult throughout the year.
- The less complex parts of the Organizational goal were achieved; recommendations have been made for the other portion.

Strategies That Worked Well

- Andy responds very well to immediate feedback and praise.
- Conceptually he is able to use metacognitive strategies and understands their application, however sometimes his skill level interferes with the product.
- He enjoyed the paired reading and noticeable gains were made in reading fluency.
- Keyboarding worked well, Andy finished the year touch typing 16 wpm. The spell check function in the word processing program was a great assist.
- Parental involvement really helped with follow through.

Goals Requiring Ongoing Focus

- Metacognitive strategies - this is an area which will benefit Andy. COPS still requires a bit of work. Other strategies can be introduced next year. There is no reason that another language strategy could not be introduced simultaneously with a math strategy.
- The organizational goal needs to be broken down into smaller segments. Much was achieved, however it was too large to complete. It can be redesigned and brought forward into next year's IPP.

Support Services Required

- Teacher aide support will need to continue at the present level.
- If the parents are to be as involved next year, some formal in-service may prove to be of benefit.
- Andy will need access to a computer for ongoing keyboarding and word processing.
- The use of the spelling ace should be continued.

Recommendations

Continue with Andy's IPP next year. It provided good direction and was a useful document to facilitate communication between home and school. The annual goal with respect to reading comprehension was completed. It could be extended and placed in next year's IPP. The COPS goal is almost completed and can be replaced with some of the redesigned "organizational" goals/objectives. The support strategies should also continue (homework book, computer, teacher aide, IPP meetings with the parents).

Date: June 30, 199x

Section V
Blank IPP Samples

Format A **Individualized Program Plan** **Student Name:**

Student Information	**Date:**
Student I.D.# _____	Sex: ❑ M ❑ F
Name: _____	
Birth date: _____ (Month) _____ (Day) _____ (Year)	
Address: _____	
_____	
Telephone No.: _____	
Parent/Guardian: _____	
School: _____	Grade/Learning Group: _____

Relevant Medical Information

IPP Team Members	**Position**
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Additional Information

Special Education and Related Services (additional school staff/support personnel/agencies)

Areas of Strength

Areas of Need

Required Classroom Accommodations (changes to instructional and evaluative strategies, materials and resources, facilities or equipment)

Assessed Level of Educational Performance; e.g., teacher observation, interview, informal and formal testing

Date Given	Tests	Results

Summary of Assessed Level of Educational Performance

Format A Individualized Program Plan (cont'd) Student Name:

Long-term Goal

Short-term Objectives Related to Long-term Goal (observable/measurable)	**Review Dates**	**Assessment Procedures**	**Results and Recommendations**

Transition Plans (recommendations, services required, strategies and materials that were effective)

Signature of IPP Team Members (Signature indicates that you understand the IPP)

Parent/guardian _____

Student (if applicable) _____

Principal or designate _____

Teacher(s) _____

_____

_____

Other team members _____

_____

_____

_____

_____

Annual Review and Recommendations

Goals Achieved	Strategies That Worked Well

Goals Requiring Ongoing Focus	Support Services Required

Recommendations

Date: _____

Format B[11]

Individualized Program Plan for _____ 199_ – 199_ Page ____ of _____.

SCHOOL IDENTIFICATION INFORMATION

SCHOOL SYSTEM NAME _____
ADDRESS _____
PHONE NUMBER _____

SCHOOL NAME _____
ADDRESS _____
PHONE NUMBER _____

STUDENT IDENTIFICATION INFORMATION

NAME _____ DATE OF BIRTH _____ GRADE ____ SEX M F
PROGRAM TITLE _____ LANGUAGE _____ HOME _____ SCHOOL _____
PARENTS/GUARDIAN NAME(S) _____
ADDRESS _____
PHONE NUMBER _____ (WORK) _____ (HOME)

PROGRAM AND RELATED SERVICES

DESCRIPTION OF SPECIAL EDUCATION PROGRAM DESCRIPTION OF REGULAR PROGRAM

INSTRUCTIONAL AREA	PERIODS/WEEK	SUBJECT	TEACHER	ACCOMMODATIONS REQUIRED*	MEDICAL CONCERNS DATE & FINDINGS
		Language Arts		[ ] YES [ ] NO	
		Mathematics		[ ] YES [ ] NO	
		Social Studies		[ ] YES [ ] NO	
		Science		[ ] YES [ ] NO	
		Phys. Ed.		[ ] YES [ ] NO	
ANCILLARY SERVICES		Music		[ ] YES [ ] NO	
Counselling	Speech	French		[ ] YES [ ] NO	
Soc. Ser.	Nurse	Health		[ ] YES [ ] NO	
Psychology	O.T				
Other	P.T	Transition Plan: [ ] YES [ ] NO		* If "YES" see attached	

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Format B (cont'd)[11]

Individualized Program Plan for _____ 199_ – 199_ Page ____ of _____.

ASSESSMENT RESULTS

INSTRUMENT	DATE	RESULTS	IDENTIFIED STRENGTHS/NEEDS
FORMAL			
INFORMAL			
OBSERVATIONS			

SUMMARY

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Format B (cont'd)[11]

Individualized Program Plan for _____ 199_ – 199_ Page ____ of _____.

ANNUAL SUMMARY REPORT

ANNUAL GOALS

SUMMARY OF GAINS MADE, EFFECTIVE METHODOLOGIES AND MATERIALS, AREAS OF CONTINUING CONCERN

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Format B (cont'd)[11]

Individualized Program Plan for _____ 199_ – 199_ Page ____ of _____.

Goals

Annual Goal _____

Description of Present Level of Performance _____

_____

_____

SHORT-TERM OBJECTIVES (include criteria)	DATES			CHANGES RESULTING FROM REVIEW	EVALUATION METHOD/PERSON
	S.D.*	P.A.D.*	A.A.D.*		

*S.D. = STARTDATE; P.A.D. = PROPOSED ACHIEVEMENT DATE (IS THE REVIEW DATE); A.A.D. = ACTUAL ACHIEVEMENT DATE

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Individualized Program Plan for _____ 199_ – 199_ Page ____ of _____.

IPP TEAM MEETING

1. TYPE OF MEETING ❑ Initial ❑ Review ❑ Exit

2. MEETING DATE _____

3. THIS PLAN IS TO BEGIN _____ AND END _____.

4. TEAM PARTICIPANTS (To be signed at the IPP meeting)

PARENT _____	CLASSROOM TEACHER _____	CLASSROOM TEACHER _____
STUDENT _____	CLASSROOM TEACHER _____	CLASSROOM TEACHER _____
ADMINISTRATOR _____	SPECIAL ED. TEACHER _____	COUNSELLOR _____
SPECIALIST (specify) _____	SPECIALIST (specify) _____	OTHER _____

5. TRANSITION PLAN REQUIRED [ ] YES; ❑ATTACHED; [ ] NO, IF NO WILL BE COMPLETED BY _____
[ ] NO

6 PERSON RESPONSIBLE FOR THE IPP _____

7. COMMUNICATION

I. THE PARENT/GUARDIAN/STUDENT WISH TO BE INVOLVED

[ ] AT THE INCEPTION
[ ] AFTER DRAFT IPP IS PRESENTED

II. INFORMATION REGARDING THE ONGOING NATURE OF THIS IPP WILL BE COMMUNICATED TO HOME BY (check all that apply)

[ ] SEMI-ANNUAL REVIEW MEETING
[ ] REPORT CARD PERIODS (TELEPHONE [ ]; WRITTEN [ ]; MEETING [ ])
[ ] MONTHLY INTERVAL (TELEPHONE [ ]; WRITTEN [ ]; MEETING [ ])
[ ] Other _____

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Individualized Program Plan for _____ 199_ – 199_ Page ____ of _____.

IPP Team Meeting (cont'd)

8. DISCUSSION

MAJOR AREAS DISCUSSED/GENERAL COMMENTS

GOALS/OBJECTIVES COMPLETED

NEW GOALS/OBJECTIVES

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Individualized Program Plan for _____ 199_ – 199_ Page ____ of _____.

IPP Team Meeting (cont'd)

8. DISCUSSION (cont'd)

ADDITIONS TO "SUMMARY OF GAINS MADE" (Year end only)

9. NEXT MEETING WILL BE HELD _____

10. RESPONSE OF THE PARENT(S)/GUARDIAN(S)/STUDENT

[ ] I agree with this IPP and am clear about the process.

[ ] I request a review of the area(s) in which I have a concern.

❑ ASSESSMENT ❑ CURRENT NEEDS ❑ ELIGIBILITY

❑ GOALS AND OBJECTIVES ❑ PLACEMENT ❑ SERVICES

❑ OTHER (Specify) _____

[ ] I request my child receive no special education placement/services.

SIGNATURE(S) _____ DATE _____

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Individualized Program Plan for _____ 199_ – 199_ Page ____ of _____.

PROGRAM ACCOMMODATIONS FOR _____ DATE _____

SUBJECT	TEACHER
ACCOMMODATIONS	ASSESSMENT PROCEDURES/PERSON RESPONSIBLE

SUBJECT	TEACHER
ACCOMMODATIONS	ASSESSMENT PROCEDURES/PERSON RESPONSIBLE

SUBJECT	TEACHER
ACCOMMODATIONS	ASSESSMENT PROCEDURES/PERSON RESPONSIBLE

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Individualized Program Plan for _____ 199_ – 199_ Page ____ of _____.

TRANSITION PLAN FOR _____ DATE _____

I. CURRENT

LONG TERM GOALS(S) (Hopes/Dreams)

POSSIBLE BLOCKS TO GOALS (Fears)

IMPORTANT EVENTS IN STUDENT'S DAY (School and Community)

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Format B (cont'd)[11]

Individualized Program Plan for _____ 199_ – 199_ Page ____ of _____.

TRANSITION PLAN FOR _____ DATE _____

II. **FUTURE YEAR ONE (19__-19__) — SPECIFIC GOALS** (include services required)

PROGRAM MUST INCLUDE

PROGRAM MAY INCLUDE

PARENTS/STUDENT WOULD LIKE TO VISIT SITE [ ] Yes [ ] No Arranged for _____ On _____

III. **FUTURE YEAR TWO/THREE — GLOBAL GOALS**

SIGNATURES _____ Parent _____ Student _____ School

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Section VI
Footnote References

[1] "Someone's missing: the student as an overlooked participant in the IEP process," by Mary T. Peters, 1990, *Preventing School Failure*, *34*(4), pp. 33–34.

[2] From Edmonton Public School District No. 7.

[3] "High school students rate their IEPs: low opinions and lack of ownership," by T. C. Lovitt, S. S. Cushing and C. S. Stump, 1994, *Intervention in School and Clinic*, *30*(1), pp. 36–37.

[4] "Someone's missing: the student as an overlooked participant in the IEP process," by Mary T. Peters, 1990, *Preventing School Failure*, *34*(4), pp. 33–34.

[5] *Collaborative teams for students with severe disabilities: integrating therapy and educational services* (pp. 55, 254), by B. Rainforth, J. York and C. Macdonald, 1992, Baltimore, MD: Paul H. Brookes.

[6] *The Syracuse community-referenced curriculum guide for students with moderate and severe disabilities* (p. 317), by Alison Ford, et al., 1989, Baltimore, MD: Paul H. Brookes.

[7] *Academic challenge: a programming guide* (p. 3:31), by Edmonton Public School District No. 7, 1988, Edmonton, AB: Edmonton Public School District No. 7. Reprinted with permission.

[8] *The IEP process reference handbook for special class teachers* (p. 29), prepared by A. Reeve and D. Katz, 1987, Victoria, BC: Greater Victoria School District.

[9] *The Syracuse community-referenced curriculum guide for students with moderate and severe disabilities* (pp. 237–238, 242–243), by Alison Ford, et al., 1989, Baltimore, MD: Paul H. Brookes.

[10] *Transition planning for young adults with intellectual disabilities: a resource guide for families, teachers and counsellors* (pp. 4–5), by Alberta Education, Education Response Centre, 1992, Edmonton, AB: Alberta Education.

[11] ECSS Educational and Counselling Support Services (1995). 11232 – 100 Avenue, Edmonton, AB T5K 0H9. Telephone: (403) 482–3277. Contacts: Dr. Graham Ross or Patricia Schuster.

Section VII
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Lovitt, T. C., Cushing, S. S., & Stump, C. S. (1994). High school students rate their IEPs: low opinions and lack of ownership. *Intervention in School and Clinic*, *30*(1), 36–37.

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Alberta
EDUCATION

4

Teaching Students who are Deaf or Hard of Hearing

PROGRAMMING FOR STUDENTS WITH SPECIAL NEEDS

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This document is intended for:

Students	
Teachers	✓
Administrators	✓
Counsellors	✓
Parents	
General Public	

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- Members of the Special Education Advisory Committee representing:
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  - Alberta Association for Community Living
  - Alberta Home and School Councils' Association
  - Alberta School Boards Association
  - Alberta Teachers' Association
  - College of Alberta Superintendents
  - Council for Exceptional Children (CEC), Alberta Federation
  - Learning Disabilities Association of Alberta
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Introduction to the Series

Programming for Students with Special Needs is a series developed in response to a needs assessment survey conducted by the Special Education Branch of Alberta Education in the Spring of 1992.

The information provided by survey respondents has been used to guide the nature and content of the series. The respondents indicated the need for practical suggestions about instructional strategies, classroom management, preparing individual program plans and understanding the nature of special needs. They also wanted information about the availability of special education resources.

The following books are included in the series. The information in each book is interrelated and can be used to provide instruction to all students.

Book 1: ***Teaching for Student Differences***
Highlights strategies for differentiating instruction within the regular classroom for students who may be experiencing learning or behavioural difficulties, or who may be gifted and talented. It includes ideas for varying instructional time, the learning environment, resources, materials, presentation, assignments and assessments to accommodate students with diverse needs. This book contains instructional strategies for core subjects as well as by categories of differences; i.e., learning disabilities, behaviour disorders and gifted and talented. A variety of useful forms to assist teacher planning is found in the appendices.

Book 2: ***Essential and Supportive Skills for Students with Developmental Disabilities***
Includes:

- developmental checklists for communication skills; i.e., receptive, expressive, social, articulation and vocabulary
- checklists for gross and fine motor development, including colouring, graphics, manuscript printing and cutting
- charts and checklists which provide a continuum of life skills by domain (domestic and family life, personal and social development, leisure/recreation/arts, citizenship and community involvement, career development)
- checklists for mathematics, reading and writing to Grade 6
- an annotated list of other teaching resources.

Book 3: ***Individualized Program Plans***
Contains a process for IPP development and strategies for involving parents. This book provides information on writing long-term goals and short-term objectives along with case studies and samples of completed IPPs. It addresses transition planning and features forms and checklists to assist in planning.

Book 4: ***Teaching Students Who are Deaf or Hard of Hearing***
Includes information on the nature of hearing loss and the various communication systems which may be used The book contains information on amplification, educational technologies, program planning and teaching strategies.

Book 5: ***Teaching Students with Visual Impairments***
Is under development in collaboration with the British Columbia Ministry of Education. The expected release date is Spring 1996.

Book 6: ***Teaching Students with Learning Disabilities: Classroom Strategies***
Is under development in collaboration with the Elk Island Public Schools Regional District. The expected release date is Spring 1996.

Programming for Students with Special Needs is not intended to be a complete authority on the many disciplines associated with the education of students with special needs. In providing instruction to students with special needs, staff should utilize the support services available in their jurisdiction.

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Introduction

This resource offers basic information to help provide successful school experiences for students who are deaf or hard of hearing. Teaching a student who is deaf or hard of hearing may be challenging. However, like all students, these students have strengths and areas for growth. Many of their needs are the same as other students.

The information in this book will be helpful in understanding:

- the student's hearing loss
- the educational implications of the hearing loss
- the use of amplification and technology
- information on communication and language intervention
- classroom and teaching strategies
- different communication systems.

It also provides a glossary on page DHH.62.

Placement options for students who are deaf or hard of hearing include:

- an inclusive or integrated setting within the student's neighbourhood school; in such cases, appropriate support, such as an educational interpreter, teacher assistant and/or itinerant teacher and resource personnel for the deaf and hard of hearing may be required, depending on the student's individual needs

- a segregated setting where students who are deaf or hard of hearing are placed in a self-contained classroom, which may or may not be within the student's neighbourhood school; in such cases, programming is often provided by staff who have specialized training

- a combination of integrated and self-contained settings.

Flexibility in programming and collaboration between professionals and parents is essential in determining the best possible program for the individual student. Establishing good communication with students, parents and community service providers will foster the student's social, emotional, communicative and educational development.

There is often a range of support services required for the student who is deaf or hard of hearing. It is important to have a contact person in the school to coordinate programming.

The service delivery team may include the:

- parent
- teacher
- teacher assistant/aide
- interpreter (oral or sign language)
- communication aide/interpreter
- audiologist
- hearing aide dispenser
- educational audiologist
- educational consultant for the deaf and hard of hearing
- itinerant teacher of the deaf
- speech/language pathologist
- teacher of the deaf and hard of hearing.

Section I
Measurement of Hearing and Hearing Loss

Understanding a student's hearing loss and its implications for education helps the teacher meet the student's educational needs. It is important to understand how the student's hearing loss was tested, the degree and type of hearing loss, the need for amplification and why the student may exhibit certain learning difficulties.

Hearing impairment is a general term used by some professionals to describe hearing loss. The terms deaf or hard of hearing are used to denote varying degrees of hearing loss. Generally, people who are hard of hearing have the ability to use their residual (remaining) hearing to process auditory information. People who are deaf have a hearing loss so severe that they cannot process auditory language with or without amplification.

It is important to remember that the degree of hearing loss does not always determine whether or not the individual speaks clearly nor does it determine how well residual hearing is used to process auditory information.

The determination of whether a student has a hearing loss is based on the results of a hearing test. Hearing testing is performed by an audiologist. The student, wearing earphones, indicates the softest sounds that he or she can hear for a variety of pitches (tones). The softest sound that the student can hear is called the threshold. This information is plotted on an audiogram.

An audiogram is a graphic representation of hearing ability. The axis across the top of the audiogram shows the frequency or pitch of the tones, measured in hertz (Hz). The axis down the side of the audiogram shows the intensity or loudness of the tones, measured in decibels (dB). Thresholds are marked on the audiogram for each tone presented to each ear. Os indicate the threshold of the right ear and Xs indicate the threshold of the left ear. After the thresholds for the entire frequency range are determined, a line is drawn connecting the thresholds for each ear. The student is unable to hear any sounds which occur at a softer level than the threshold line.

A demonstration audiogram providing information on how to interpret and understand audiograms and hearing-test results is found on page DHH.4.

Hearing loss is usually organized into five categories which consider the range of sounds used in speech:

- **Normal** — The student can detect all speech sounds even at a soft conversational level. The student's hearing would be plotted in the –10 to +15 decibel range.

- **Minimal loss** — The student may have difficulty hearing faint or distant speech. Peer conversation and teacher instructions presented too rapidly, particularly in noisy classrooms, are likely to result in

missed information. The loss is between 16–25 decibels.

- **Mild loss** — The student may miss up to 50 per cent of class discussions especially if voices are soft or the environment is noisy. The student will require the use of a hearing aid or personal FM system. The loss is between 26–40 decibels.

- **Moderate loss** — Classroom conversation from three to five feet away can be understood if the structure and vocabulary is controlled. Hearing aids and/or a personal FM system is essential. Specific attention will need to be directed to language development, reading and written language. The loss is between 41–55 decibels.

- **Moderate to severe loss** — Without amplification, the student with this degree of loss can miss up to 100 per cent of speech information. Full-time use of amplification is essential. The student will probably require additional help in all language-based academic subjects. The loss is between 56–70 decibels.

- **Severe loss** — The student can only hear loud noises at close distances and requires individual hearing aids, intensive auditory training and specialized instructional techniques in reading, language and speech development. The loss is between 71–90 decibels.

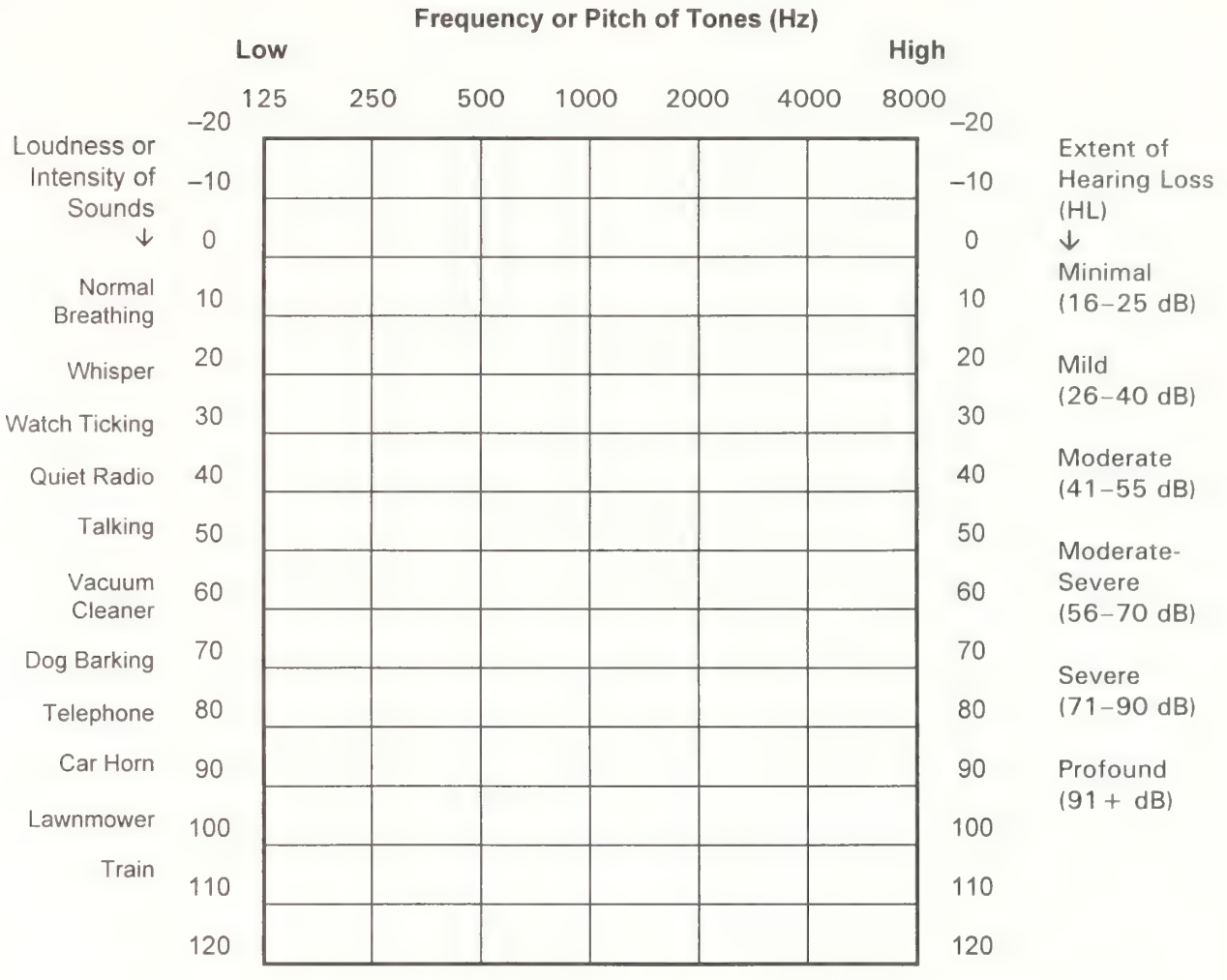
- **Profound loss** — For all practical purposes, the student relies on vision rather than hearing for processing information. A student in this category is usually a candidate for signing systems and specialized instructional techniques in reading, speech and language development. A loss of 91 decibels or more is described as profound.

It is important to recognize that a student may have different degrees of hearing loss at different pitches (tones). For example, a student may have a mild hearing loss for low-pitched sounds and a severe loss for high-pitched sounds. The student will hear speech in a distorted manner because all speech sounds are not heard equally.

Day-to-day fluctuations in a student's hearing may also be noted. Colds, general health and ear infections play a role in how any student responds to verbal information in a classroom. It is important to report all suspected fluctuations in hearing or possible middle ear infections to the student's parents.

The audiograms following the demonstration audiogram illustrate different degrees of hearing loss, amplification needs and implications for communication and learning.

Demonstration Audiogram



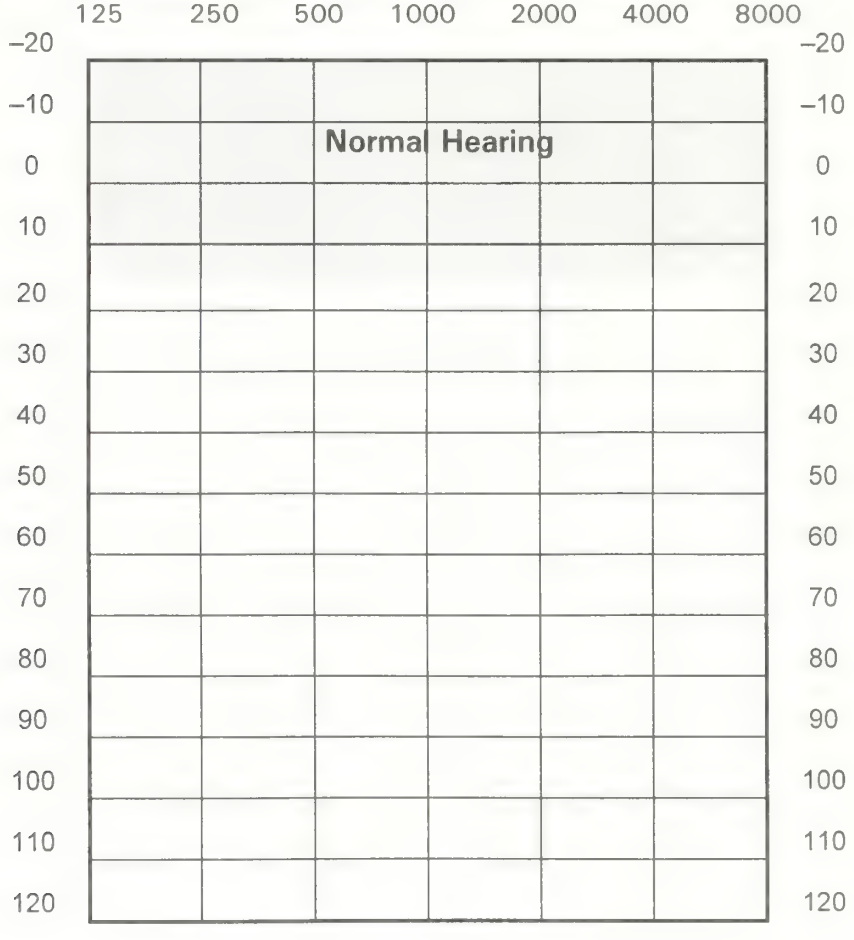
- The intensity or loudness of many familiar sounds is listed on the left.
- Common terms audiologists use to describe the extent of hearing loss are listed on the right.
- The frequency or pitch of sounds is listed across the top. The noises produced by an air conditioner or bass drum are low-pitched sounds. A tea kettle whistling is a high-pitched sound.

Sample Audiograms

The following sample audiograms describe typical hearing losses. Remember, each student with a hearing loss has different hearing ability. The audiogram describes a student's ability to hear discrete pitches. It does not describe the quality of sound students hear or how well they are able to use their hearing.

It is important to base judgements of student needs on their functioning level, not on the level of hearing loss. Discuss the student's audiogram with the professional who identified the hearing loss (audiologist) or an education specialist for the deaf and hard of hearing.

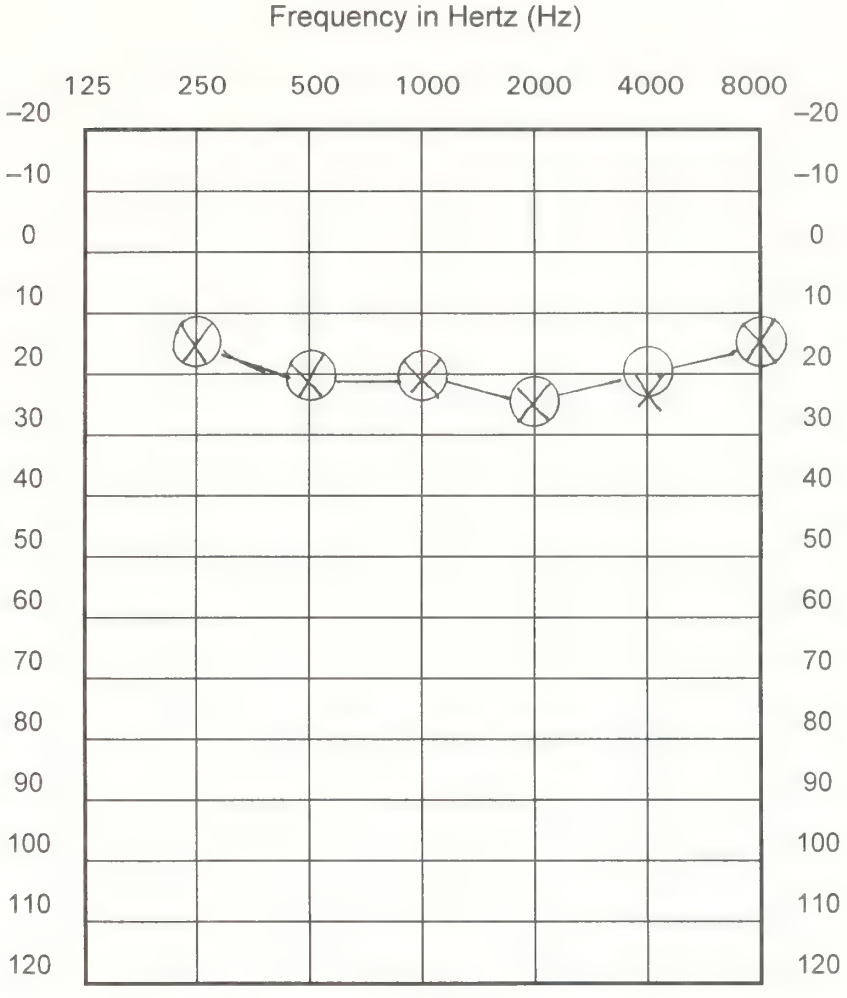
Normal Hearing (–10 to +15 dB HL)



Implications

- The student can hear all speech sounds even at soft levels and should not have any difficulties hearing in a good acoustic environment.
- Hearing ability may be affected by distance and poor classroom acoustics.

Minimal Hearing Loss (16–25 dB HL)



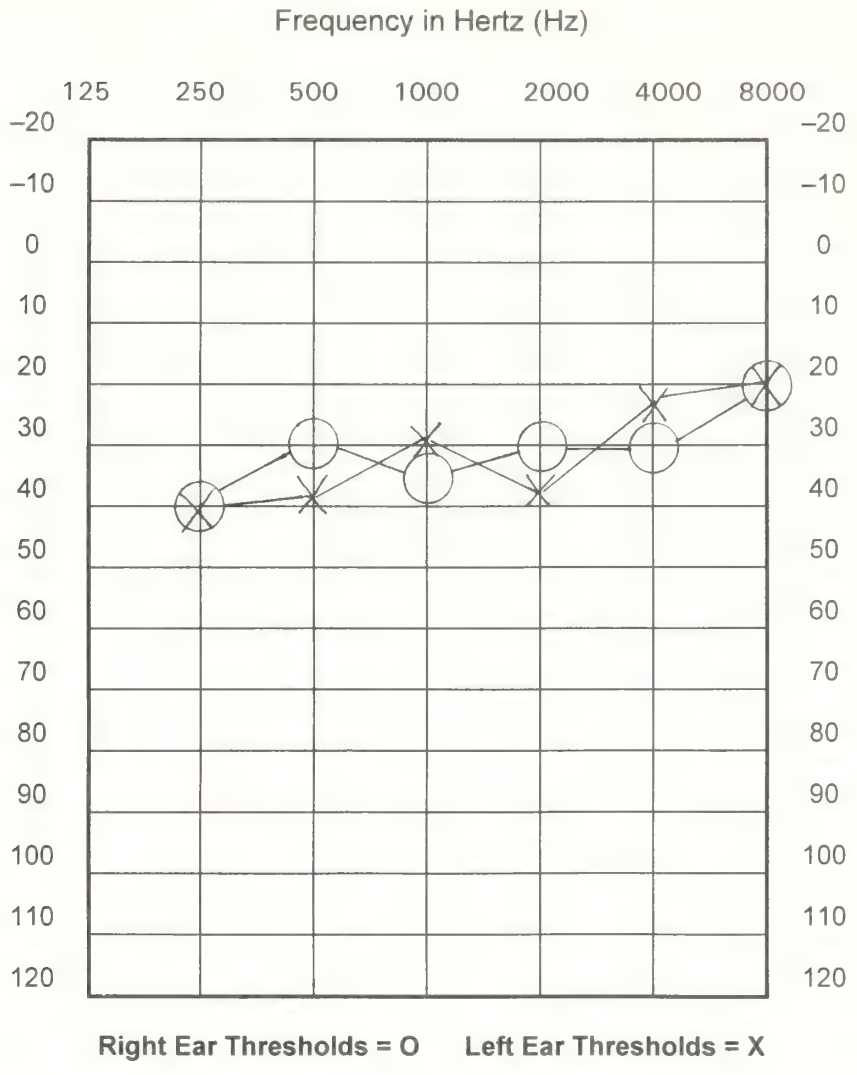
The Os indicate the threshold of the right ear and the Xs indicate the threshold of the left ear. The student is unable to hear sounds at a softer level than the threshold line; i.e., normal hearing sounds.

Implications

The student may:

- have difficulty hearing faint or distant speech, or speech in poor acoustic classrooms
- miss subtle conversation
- benefit from preferential seating
- need help with language development and prosocial skills.

Mild Hearing Loss (26–40 dB HL)

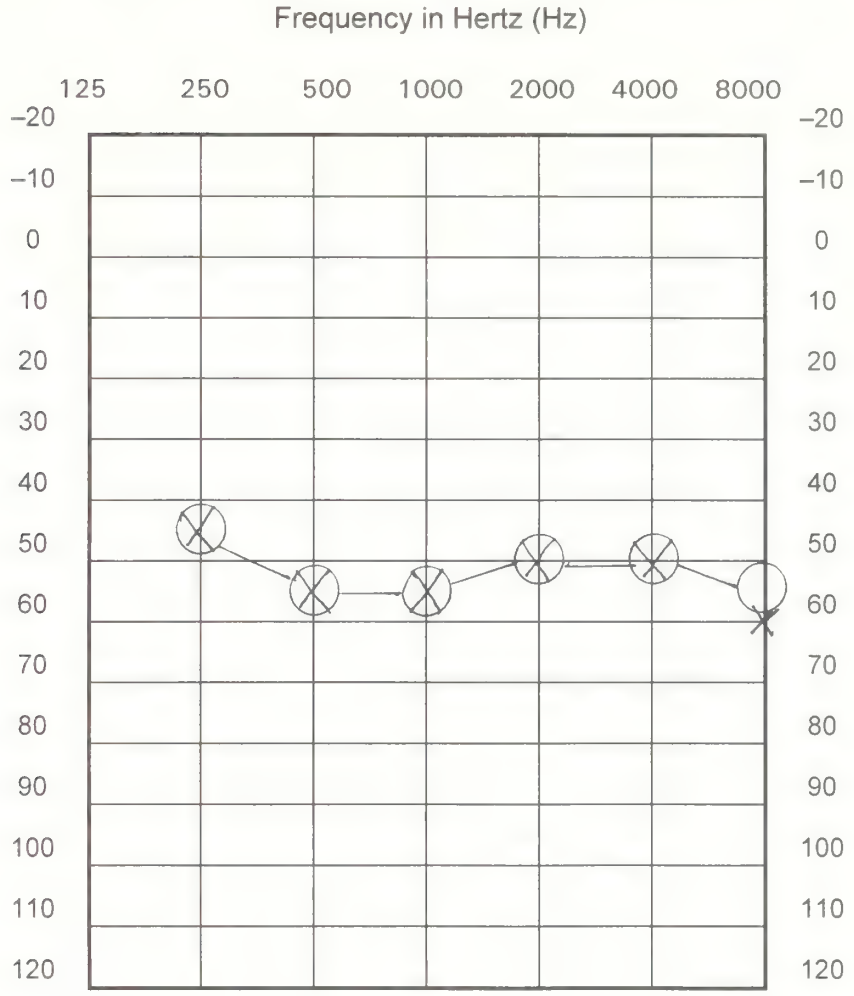


Right Ear Thresholds = O Left Ear Thresholds = X

Implications

- The use of amplification (hearing aids or an FM system) may be recommended by an audiologist.
- The student:
  - may miss up to 50 per cent of class information, especially in a poor acoustic environment
  - may experience difficulties in the areas of speech, language and reading
  - will benefit from preferential seating
  - will likely benefit from support services in the areas of speech, language, reading, writing and prosocial skills.
- The teacher and all students may benefit from inservicing regarding the effects of hearing loss.

Moderate Hearing Loss (41–55 dB HL)

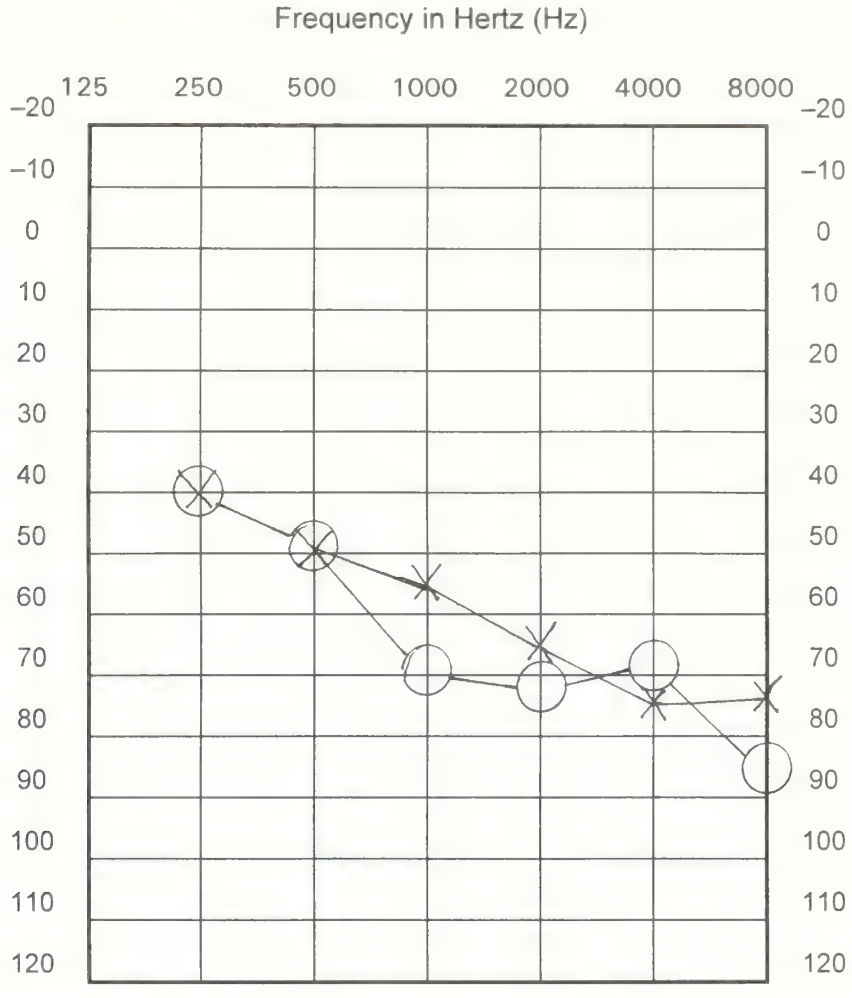


Right Ear Thresholds = O **Left Ear Thresholds = X**

Implications

- The use of amplification (hearing aids and FM system, as recommended by an audiologist) is essential.
- The student:
  - may understand limited conversation at a close distance in a quiet environment
  - may have difficulty with the development of social skills
  - will benefit from preferential seating
  - will need assistance in the areas of speech, language, reading, writing and prosocial skills.
- The teacher and all students will benefit from inservicing regarding the effects of hearing loss.

Moderate to Severe Hearing Loss (56–70 dB HL)

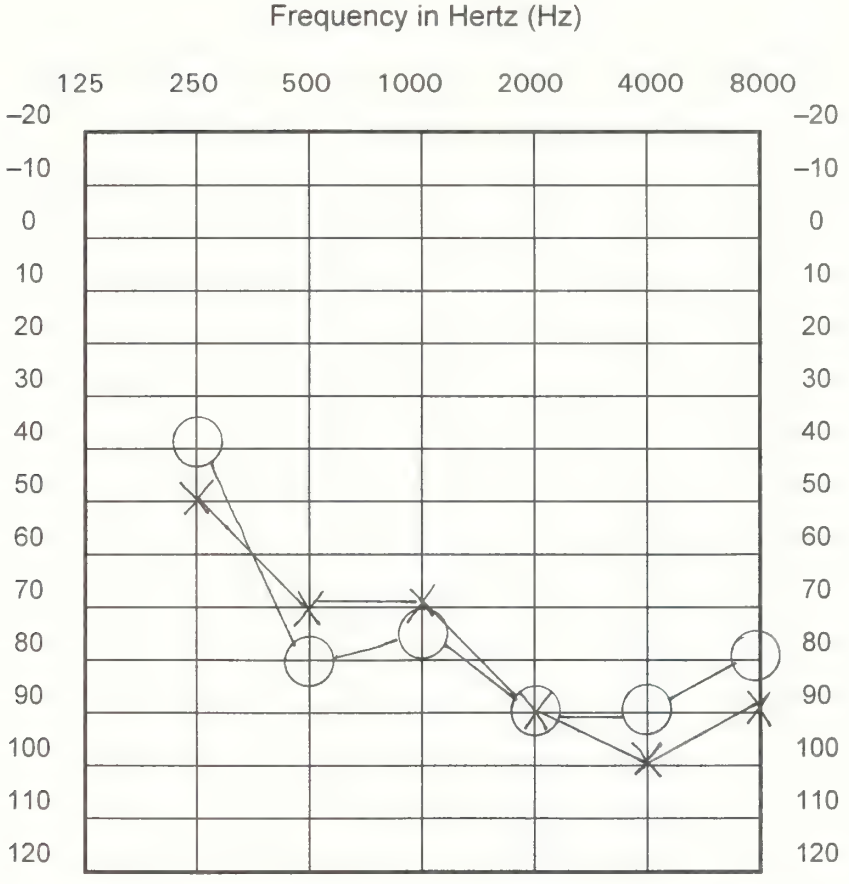


Right Ear Thresholds = O Left Ear Thresholds = X

Implications

- The use of amplification (hearing aids and FM system, as recommended by an audiologist) is essential.
- The student:
  - may miss all speech information without the use of amplification
  - will have difficulties with speech intelligibility and voice quality
  - may appear socially delayed
  - will likely have a language delay
  - will benefit from preferential seating
  - will need assistance in the areas of speech, language, reading, writing and prosocial skills.
- The teacher will require assistance with programming.
- The teacher and all students will benefit from inservicing regarding the effects of hearing loss.

Severe Hearing Loss (71–90 dB HL)

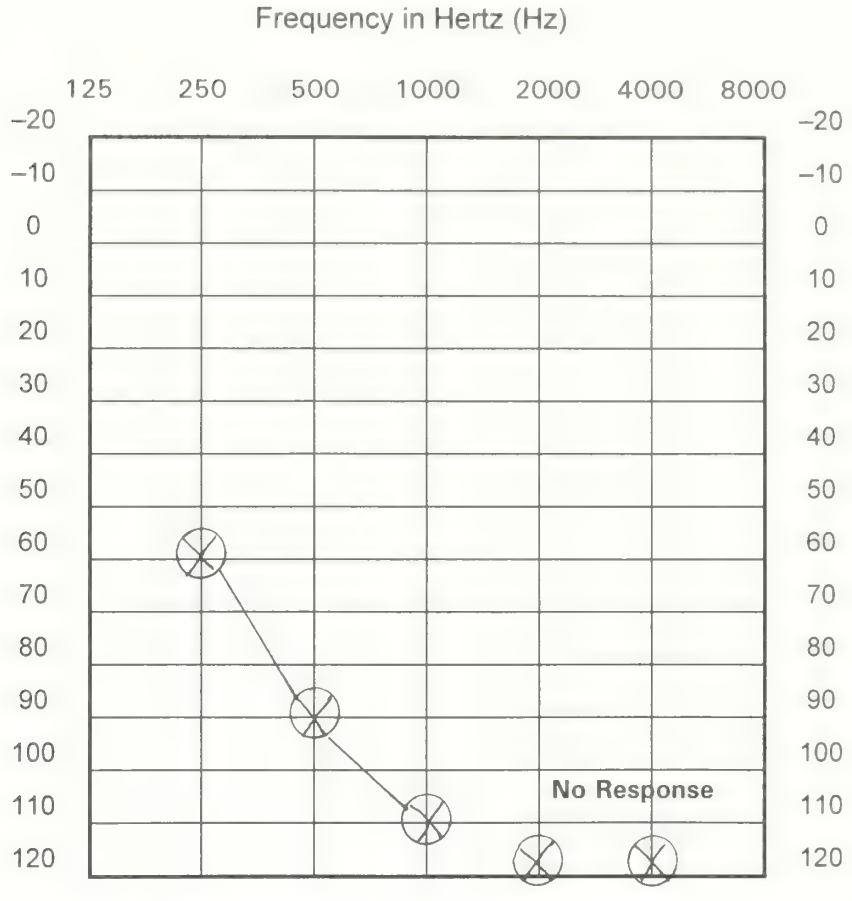


Right Ear Thresholds = O Left Ear Thresholds = X

Implications

- The use of amplification (hearing aids and FM system, as recommended by an audiologist) is essential.
- The student:
  - is unable to hear all speech without amplification
  - may only hear loud sounds at a close distance
  - will have difficulties with speech intelligibility and voice quality
  - may appear socially delayed
  - will likely have a language delay
  - may benefit from the use of signing and speech for early language development
  - will benefit from preferential seating
  - will need assistance in the areas of speech, language, reading, writing and prosocial skills.
- The teacher will require assistance with programming.
- The teacher and all students will benefit from inservicing regarding the effects of hearing loss.

Profound Hearing Loss (91+ dB HL)



Right Ear Thresholds = O **Left Ear Thresholds = X**

Implications

- The use of amplification (hearing aids and FM system) may or may not be beneficial; discuss with an audiologist.
- The student:
  – may not be able to hear any sounds at all without amplification
  – may use sign language or a combination of sign language and speech to communicate
  – will have difficulties with speech intelligibility and voice quality
  – may appear socially delayed
  – will likely have a language delay
  – will benefit from preferential seating
  – will need assistance in the areas of speech, language, reading, writing and prosocial skills.
- The teacher will require assistance with programming.
- The teacher and all students will benefit from inservicing regarding the effects of hearing loss.

Section II
Gathering Student Information

In order to obtain a complete picture of students and their needs:

- review student files
- interview the student's parents or guardians
- interview and observe the student
- interview previous staff; e.g., teachers, counsellors, aides, interpreters
- interview other professionals involved with the student; e.g., educational audiologist, education consultant or itinerant teacher for the deaf and hard of hearing, speech-language pathologist.

Most tests and procedures used with students with hearing loss are normed on or adapted from those used with hearing students. Within the inclusive setting, these assessment instruments may be used but may require adaptations in presentation; e.g., use of a scribe or sign language. Consideration should be given to the mode of communication and the language abilities of the individual student. Be careful when interpreting assessment results. They may reflect the student's language level rather than ability.

A variety of assessment tools should be used when evaluating the student with hearing loss. In addition to standardized assessment instruments, the following could be considered:

- play-based assessment
- ecological inventory
- parent interview
- performance-based assessment
- assessment portfolios
- developmental checklists.

The file review form on page DHH.54 is provided to help the teacher obtain a comprehensive overview of student information in the following areas:

- medical
- audiological
- communication
- educational.

The file review form provides the opportunity to note the names of resource personnel available to help with programming and assistive devices the student may require.

To facilitate the gathering of information, the student, parents and resource personnel may be interviewed by the teacher. Sample questions are provided on pages DHH.38–43.

The file review form provides a guided process for reviewing student files and can be used as a basis for producing the student's IPP. The form can be completed in consultation with an educational consultant for the deaf and hard of hearing.

The form should be made available to teachers, classroom assistants and interpreters. It is also be helpful to have a copy of the form in the teacher's plan book as information for substitute teachers.

Both completed and blank file review forms are provided on pages DHH.54–61.

Section III
Implications of Hearing Loss

Educational Implications

Although students may have similar hearing losses, they may have different auditory, speech and language skills and different learning needs. Developing idiomatic and grammatical English and understanding abstract ideas are examples of areas which may be delayed due to hearing loss. Subject areas which are language based and abstract in content may be more difficult for the student to comprehend. Adaptations to instruction and assignments may be necessary. In addition, the following areas require sequential, direct instruction and practice:

- organizational skills
- study skills
- responsibility for homework assignments
- expressive reasoning
- generalization of knowledge
- care and use of amplification
- use of assistive devices.

The areas of greatest need are addressed in the section entitled Strategies, page DHH.25 which provides information about appropriate programming for the student.

Social Implications

A significant hearing loss may lead to a need for specific strategies to address social skills development. Students who are deaf or hard of hearing may experience difficulty communicating in the community. A delay in language development also affects the comprehension of communication.

Social communication using English language structures requires direct instruction for students who are deaf. These English language structures include the use of greetings, taking turns, maintaining a topic and concluding a conversation.

In general, students who communicate using sign language, communicate more fluently with individuals who use the same system of sign language.

Students who are unable to hear announcements over the intercom or the fire alarm require peer assistance or another means by which to be alerted. These students will require specific notification for dealing with changes in routine and ensuring their safety.

As students reach the pre-teen and teenage years, they may become reluctant to use hearing aids, an FM system or a personal aid, as the appearance of the equipment draws unwanted attention. It may be helpful to:

- provide inservicing to the student, class and staff on the importance of using amplification
- suggest the use of fanny packs to make the equipment less visible and more comfortable
- complete a contract with the student to ensure consistent use of the equipment.

For additional information, see Social Environment, page DHH.36.

Implications for Communication

Students who are deaf or hard of hearing may use various means of communication. The mode of communication chosen for the student depends on the student's needs and parent preferences.

Communication may include the use of one or more of the following:

- speech
- speechreading (lipreading)
- manual communication (signing)
- cued speech.

A synopsis of various communication systems follows.

Aural/Oral Communication

- Speechreading or lipreading is gaining information about what is being said by observing the lip, jaw and tongue movements of the speaker. The facial expressions of the speaker also provide information. See also see Speechreading/ Lipreading, page DHH.21.

- Cued speech consists of 12 cues or signals which help distinguish sounds which look alike on the lips. Four of the cues indicate groups of vowel sounds and are made by positioning the hand near the chin, cheek, throat and mouth. The other eight hand shapes identify different groups of consonants and are formed by different arrangements of the fingers. See page DHH.53 for an illustration.

Manual Communication

- American Sign Language, more commonly called ASL, is a visual language which does not involve speech sounds. ASL combines both manual and non-manual features. The manual features include the shapes, positions and movements of the hands. The non-manual features of the language refer to facial expression, lip patterns and body movement, all of which play an integral part in relaying meaning. There is no standardized written form of ASL. See Examples of American Sign Language, page DHH.52.

- Fingerspelling is a system of representing numbers and letters of the alphabet using various hand shapes and movements. It is frequently used to spell words (letter

by letter) where no sign exists, or to clarify the meaning of a sign. See Finger Spelling, page DHH.50.

- Manually Coded English (MCE) is a term used to describe various signed communication systems which follow English word order. The main purpose of these systems is to promote the acquisition of English by exposing the student to English word meaning and grammar through the simultaneous use of signs and spoken and written English. The system most commonly used in integrated educational settings is Signed English. See Signs — English Word Order, page DHH. 51.

Total Communication

Total Communication (TC) is a term that refers to the right of a child to use all forms of communication to develop language competence. The students use a variety of oral and manual forms of communication, including speech, speechreading, fingerspelling, gestures, signed communication, reading and writing. Many programs are described as TC if they involve a variety of communication approaches depending on the needs of the student and the knowledge and skills of the teachers or interpreter. The prevailing description of total communication is the simultaneous use of speech and signs, fingerspelling, speechreading and the use of residual hearing through amplification.

Deaf Culture

Many individuals who are deaf view their deafness as a unique characteristic which makes them part of a community that shares a common experience, tradition, history and language. The term deaf culture is used to identify a set of beliefs and practices shared by a group of deaf people who also share a common sign language.

In North America, American Sign Language (ASL) serves as the principal identifying characteristic of deaf members. ASL is often described as the natural language of deaf people who have deaf parents. It is not only a first language but also carries with it the culture of generations of deaf people in North America. Membership in the deaf culture is based on a complex set of variables including the degree of hearing loss, mastery of ASL and social and political participation within the deaf community.

Members of the deaf community and some professionals involved in the education of the deaf believe that the existence of a deaf culture suggests the need for deaf students in schools to learn more about their own deafness and particularly about the history, language and present-day beliefs of the deaf community. In addition, bilingual-bicultural (Bi-Bi) education has emerged as a philosophical approach to educating students who are deaf. This approach teaches fluency in ASL as the primary language of students who are deaf, with English taught as a second language. Providing students who are deaf with a learning environment where being deaf is the norm is one of the main objective of bilingual-bicultural school programs.

Section IV
Technology

Amplification

The use of amplification and educational technology can help meet the needs of students with hearing loss. The student, parents, school staff and the student's audiologist should determine the technology to be used. As technology changes, the student may come to school with new equipment with which teachers will need to become familiar.

The following is a description of the amplification technology which students may use in the classroom. These devices may help students develop language, listening and learning skills. For this reason it is imperative that all technology be routinely maintained and in good working order at all times. Troubleshooting information begins on page DHH.45.

Hearing Aids

Hearing aids are electronic devices that make all sounds louder. Sounds which are the loudest or closest to the hearing aid will be amplified most. Hearing aids do not restore hearing and do not ignore specific sounds. Hearing aids must be worn consistently and require daily checking. See page DHH.44 for a daily listening check and a list of supplies necessary to complete the check.

Hearing aids are worn on a full-time basis. Students should come to school wearing their hearing aids and leave them in place all day, unless previous arrangements have been made with the family and the student's audiologist. The school and family should work out an arrangement for providing batteries and ensuring the aid is kept clean and in working order.

Since hearing aids amplify the closest and loudest sounds the most, it is difficult for a person wearing a hearing aid to listen when there is background noise. In a typical classroom, there is often considerable noise from students, heating or ventilation systems, classroom pets, adjacent hallways or classrooms, and classroom equipment. For information on how to improve classroom acoustics see page DHH.26.

Cochlear Implant

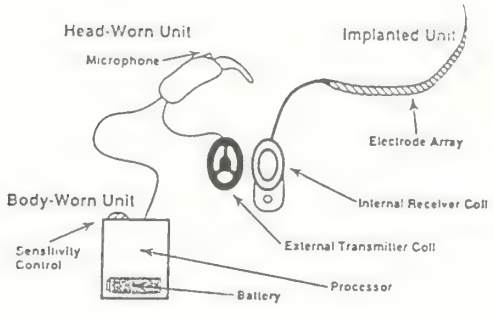
A cochlear implant is an amplification device that helps people with profound hearing impairments. It does not restore hearing to normal levels. It bypasses damaged inner ear structures to send electrical signals directly to the auditory nerve. Some of the implant's internal parts are surgically placed inside the cochlea. The external part of an implant system looks much like a body-worn hearing aid but is actually a sound-processing computer.

Decisions regarding candidacy for a cochlear implant are made by medical personnel in conjunction with the student, parents and the audiologist.

Cochlear implants may benefit students whose degree of hearing loss precludes the use of hearing aids.

Although a cochlear implant provides benefit in most listening environments, some cochlear implant users experience the same difficulties listening in the presence of background noise as students using hearing aids.

Cochlear Implant



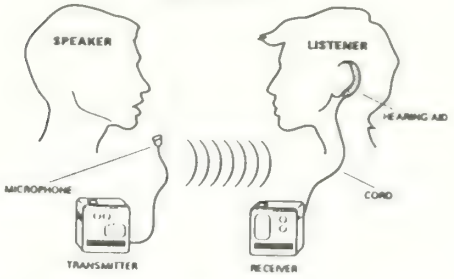
Additional information is available from the Cochlear Corporation, 61 Inverness Drive East, Suite 200, Englewood, CO, 80112, USA (1–800–458–4999).

Personal FM System

An FM system is an electronic device that transmits sound from the teacher or speaker to the student.

The teacher wears a microphone which sends his or her voice to the student through a student-worn receiver which is connected by a cord to the student's hearing aids. The student hears the voice as if it were close, overcoming some of the effects of a poor listening environment and/or background noise.

How Does Your FM System Work?



Although the benefits of using an FM system are significant, the technology needs to be monitored and checked on a daily basis in order to ensure proper functioning. See page DHH.46 for a daily listening protocol and page DHH.47 for troubleshooting information.

Freefield Amplification Systems

Freefield amplification systems are classroom public address systems based on a principle similar to the personal FM system. These devices send the teacher's voice to speakers placed in the room. They are used in classrooms where the acoustics are poor and the background noise makes it difficult for all students to hear.

The teacher wears a wireless microphone that transmits his or her voice to speakers strategically placed around the room. All students hear the teacher equally well regardless of their seating position in the room. Students with slight or mild hearing loss benefit from these systems because the teacher's voice is audible throughout the classroom.

It is possible to link a freefield amplification system to a personal FM system.

Other Educational Devices

The following educational devices will also benefit students who are deaf or hard of hearing. Discussion with the student, family, audiologist and education consultant for the deaf and hard of hearing will help determine which technology will be most beneficial.

- A closed captioned decoder is an electronic device which is attached to a television or video cassette recorder. This equipment enables viewers to read the spoken dialogue of a program (television, video or film) which has captioning provided. The program package indicates if the content is captioned. (For example, the TV Guide indicates closed captioned television shows.) New television monitors have such units built into them and do not require additional attachments.

- Laptop computers are often used by students who are deaf or hard of hearing as they may have difficulty listening and writing while watching the teacher speak.

- Use of overhead projectors benefits the student by allowing the student to see the teacher while reading the teacher's notes on the overhead. When using an overhead projector, be aware that the noise generated by the machine will significantly interfere with hearing. Consideration should be given to the placement of the overhead projector in relation to the student who is deaf or hard of hearing.

- When provided a choice, select a video player over a film projector, because the video equipment is quieter. Videos are often captioned and video players may include the technology to link directly to the student's FM system.

- Telephone Aids:
  Telephone amplifiers encourage the student to independently communicate by telephone. Telephone amplifiers permit the student the same degree of privacy available to hearing students. The following telephone aids are available:

  Built-in amplifiers are telephones which are pre-wired with an adjustable volume control on the hand set. This telephone can be used by hearing people simply by reducing the volume.

  Portable telephone amplifiers are battery operated and can be attached to the receiver of an ordinary telephone. The volume on this device is also adjustable.

  T-Coil receivers, present on some telephones, permit the student to use the telephone while wearing a hearing aid. The hearing aid must be equipped with the "T" switch and placed on the "T" to use this device.

  A TTY/TDD (Telephone Device for the Deaf) is a communication device which attaches to the telephone and allows the user to communicate over the telephone by typing the conversation. For information on the Telephone Message Relay Centre, see page DHH.24.

Classroom Acoustics

The classroom environment plays a major role in the ability of students to use auditory information effectively. Many classrooms, particularly portables, pods or classrooms in older schools, were not constructed with optimal acoustics for learning in mind. In some classrooms, the teacher's voice is at times almost completely obscured by background noise, making it difficult for all students to hear and learn.

In order to create an acceptable listening environment for all students, the teacher's voice must be louder than the background noise.

There are three factors to consider and control in order to create an acceptable listening environment for all students: noise (external, internal and student-generated), reverberation (echo) and distance from the speaker.

- **Noise**
  External noise sources:
  hallways
  adjacent classrooms
  rooms above or below the classroom
  heating/ventilation equipment outside the classroom
  outside the school (lawnmowers, playground, traffic, airplanes, etc.).

  Internal noise sources:
  heating/ventilation systems
  classroom animals
  overhead projectors
  film projectors.

  Student-generated noises:
  talking
  coughing and sneezing
  chairs and desks moving
  pencil sharpening
  paper and books rattling.

- **Reverberation (Echo)**
  All sounds bounce off any smooth surface and return to the place of origin as an echo; for example, smooth plaster, brick or cinder-block walls, windows, linoleum, tile or wooden floors, high plaster or wooden ceilings.

- **Distance from the speaker**
  As the speaker-listener distance increases, the loudness of the speaker's voice decreases.

For information on modifying classroom acoustics, see page DHH.26.

Care of Hearing Aids and/or FM Systems

Hearing aids and FM systems both contain complex electronic circuitry and delicate external components. Consult an audiologist to ensure that the equipment is handled and used in a careful manner. The following suggestions provide information for taking care of hearing aids and/or FM systems.

- Electronic devices do not function properly if they are wet or dirty. Keep hearing aids and FM systems away from moisture and dirt.

- Electronic devices do not function properly if they are abused. However, most hearing aids are designed to remain in place even for active play and sports, and are necessary to provide amplification during these important activities. Remove the hearing aids only after discussion with the student, parents and the student's audiologist.

- Hearing aids and FM system casings are usually made of plastic and should be kept away from heat sources.

- Hearing aids and FM systems can be easily damaged. When amplification is not being worn, put it in a safe place. In order to avoid losing hearing aids or an FM system, they should be stored in a consistent location.

- Hearing aids and FM systems need ongoing attention in order to ensure that they are working at all times. To keep the equipment clean:
  - wipe FM systems and hearing aids clean with a dry cloth
  - clean excess wax from earmolds
  - use pipe cleaners or special dental floss with puffs to clean tubing
  - wash earmolds regularly in warm soapy water (disconnect from hearing aids first) and let dry several hours or overnight
  - blow through tubing to get rid of water bubbles
  - listen to the hearing aids and the FM system on a daily basis to check that they are working well. Instructions for the listening check and a list of the necessary supplies are provided on page DHH.46.

- Hearing aid batteries can lose their charge quickly. It is important to have spare batteries at school at all times.
  - Store hearing aid batteries marked with a coloured tab (air-activated) in a safe place at room temperature (not the refrigerator).
  - Store hearing aid batteries without a coloured tab in a cool dry place (refrigerator is fine).
  - Dispose of all used batteries safely; used batteries are toxic.

- FM systems usually use rechargeable batteries or a rechargeable battery pack. FM system batteries are usually the responsibility of the school.

Section V
Providing for Student Needs

Communication

Auditory Training

Auditory training can take place incidentally during all teaching activities when amplification is used effectively. Using subject content during auditory training is a good strategy. Programming should also include specific auditory training for the student; e.g., locating and identifying environmental sounds, such as a ringing telephone or doorbell; fire alarms; fire, police or ambulance sirens and airplanes. A trained teacher of the deaf and hard of hearing, a speech-language pathologist or audiologist can provide assistance with programming.

Speech Programming

The teacher should model, encourage and monitor appropriate speech and provide opportunities for the student to speak in small groups and before the class. This will help the student learn appropriate voice skills (pitch duration, intensity, volume), articulation and speechreading skills.

A trained teacher of the deaf and hard of hearing or a speech-language pathologist familiar with speech acquisition should set speech goals for students with limited vocalization.

Speechreading/Lipreading

Speechreading is observing movements of the articulator's lips, teeth and tongue in order to determine the message. In English, only one-third of speech sounds are visible at the front of the mouth.

Factors which positively influence the development of speechreading skill are:

- practice
- lighting (must be directed to the speaker's face)
- the use of cues from conversation to help the reader decipher the appropriate vocabulary. For example, if the context of the discussion is traffic safety, the meaning a student associates with the word "driver" will likely be different than the meaning associated with the word in the context of a game of golf.

The student should be encouraged to speechread commonly used vocabulary and phrases; e.g., How are you? Where are you going? Using background knowledge and contextual clues, the student can then expand speechreading skills by anticipating the appropriate vocabulary in context.

Once these basic skills are established, the content of lessons should be based on new words and concepts that the student is in the process of acquiring or will soon be expected to acquire in the course of regular instruction.

A trained teacher of the deaf and hard of hearing or a speech-language pathologist can provide assistance with speechreading.

Sign Language Instruction

Formal instruction is required for learning sign language. A trained teacher of the deaf and hard of hearing can provide assistance with such programming. A certified/experienced interpreter for the deaf may also be helpful.

Instruction should include:

- guided practice in the conventions of the sign system being used
- teaching vocabulary using the chosen sign system
- opportunities for the student to observe the signs modelled by a skilled signer
- opportunities to practise the signs in a variety of situations.

The teacher is encouraged to become conversant in basic signed communication. This enables the teacher to communicate directly with the student who is deaf or hard of hearing and provides a positive role model for the other students and staff in the school.

Language Intervention

Although most students who are deaf or hard of hearing exhibit a language delay resulting from limited auditory experiences, they are capable of completing academic tasks. Teaching the language of tests and following directions is important. Students must also be taught correct syntax (grammar), semantics (word meanings) and pragmatics (conversational language).

Syntax (Grammar)

Students who are deaf or hard of hearing may have difficulty understanding common grammatical sequences in sentences. They frequently omit conventions associated with verb forms, articles, prepositions, plurals and word endings (especially "s, ing, ed") in their oral and written communication. Instruction should emphasize understanding of common sentence structures.

Semantics (Word Meanings)

Because the auditory information received by the student with hearing loss is limited, there may be fewer words understood. There may also be difficulty understanding word meanings in-depth. Additional areas which require specific instruction include:

- humour
- idiomatic or slang phrases
- multiple meanings of words
- generalization and expansion of familiar concepts based on known vocabulary
- abstract concepts.

A personal picture dictionary is useful for younger students.

Pragmatics (Conversational Language)

Students should be exposed to a wide variety of interactive experiences. The intent of conversational language needs to be emphasized. Students need to be taught that language can be used to exchange information, for interpersonal communication and for pleasure. Hearing peers may need inservicing to feel comfortable conversing with students who are deaf or hard of hearing.

Written Language

Research indicates there is a reciprocal relationship between reading and writing. Regardless of the degree of hearing loss, students may exhibit difficulty with the conventions of written language. Students may omit function words; e.g., articles, auxiliary verbs and prepositions. Sentences tend to be short due to the omission of conjunctions. It is imperative that students have a broad base of experience. Vocabulary related to these experiences must be taught and reinforced. Then the student may draw on this information when writing.

Strategies for helping students develop writing skills include:

- review materials and activities, and red-flag any that need direct intervention
- use a personal journal or notebook to develop interactive dialogue between the student and an adult
- use mapping, brainstorming, pictures and manipulatives prior to writing
- start with written recall of personal experiences (concrete information) and expand to more generalized experiences (abstract information)
- develop a personal dictionary
- use computer-assisted word processing programs
- encourage students to share ideas and not be inhibited by sentence structure; students could dictate their thoughts to an adult or peer and then edit the grammar as required
- teach rules of grammar and incorporate these rules into "self-talk" when writing
- teach the components of a story; e.g., characters, setting and story sequence
- share written work with peers by having them edit the first draft or read a final draft.

A trained teacher of the deaf and hard of hearing, a speech-language pathologist or audiologist can provide assistance with programming.

Specific resources

Alberta Children's Hospital
1820 Richmond Road S.W.
Calgary, Alberta
T2T 5C7
Telephone: (403) 229–7044
(Speech-Language Pathologist)
(403) 229–7061 (Audiology)

Alberta School for the Deaf
6240 – 113 Street
Edmonton, Alberta
T6H 3L2
Telephone: (403) 437–8901

Consulting Services
Belvedere Office
13359 – 62 Street
Edmonton, Alberta
T5A 0V5
Telephone: (403) 473–5616

Coordinated Assessment Services for the Exceptional (C.A.S.E.)
Crystal Park School
9351 – 116 Avenue
Grande Prairie, Alberta
T8V 6L5
Telephone: (403) 539–0333

Glenrose Rehabilitation Hospital
Audiology
10230 – 111 Avenue
Edmonton, Alberta
T5G 0B7
Telephone: (403) 471–7945

Regional Educational Assessment and Consultation (R.E.A.C.H.)
5139 – 14 Street S.W.
Calgary, Alberta
Telephone: (403) 777–6983
T2T 3W5

Western Centre for Deafness and Hard of Hearing Resource Services
University of Alberta
Telephone: (403) 492–5213

Telephone Message Relay Centre (MRC):
Where both parties do not have a TDD/TTY, The Message Relay Centre is available. Currently the following provide services:

- Calgary Message Relay Center for Deaf and Hearing People (Dial 711)
- Edmonton Message Relay Center for Deaf and Hearing People (Dial 711)
- Provincial Message Relay Center for Hearing to Deaf (Dial 1–800–855-1166)
- Provincial Message Relay Center for Deaf to Hearing (Dial 1–800–855–1155).

Section VI
Strategies

Classroom Accommodation

The following suggestions will aid the provision of instruction to students who are deaf or hard of hearing. The suggestions may also benefit other students in the class.

Seating

- Preferential seating for the student is critical. The decision of where to place the student should be made with the student, parent and consultant for the deaf and hard of hearing.

- Seating considerations include:
  - placing the student away from a source of noise (computer, pencil sharpener, doorway to hall, classroom pets, heat/ventilation system, path to teacher's desk)
  - the need for the student to be able to hear and see the teacher. It is equally important for the student to see and hear peers. A seating arrangement in the shape of a U works well.

Speaking

- Speak in a natural manner without raising your voice or over-enunciating.
- Repeat and rephrase what students say in a discussion so that the student who is deaf or hard of hearing does not miss information.
- Present information more slowly; i.e., in chunks, with more pauses in speech.
- Do not talk with your back toward the student.
- Non-verbal communication is crucial. The student needs to see the speaker's face in order to speechread and receive meaningful cues.
- Adequate lighting is important. It allows the student to see the speaker's face. While speaking, avoid standing in front of a window or bright light.
- Prior to presenting material, make sure the student is paying attention.
- Students with hearing loss require time to process verbal information; allow thinking/processing time before expecting questions or answers.

Classroom Acoustics

Once acoustical problems are identified, acoustical modifications should be considered so that the teacher's voice can be heard over the background noise. There are many acoustical modifications possible, ranging from inexpensive and creative uses of classroom and household items to structural renovations.

See the following page for strategies to improve classroom acoustics.

Noise

External noise sources:

- keep the door to the hall closed at all times
- choose classrooms located away from high-traffic areas such as the office, gymnasium, library, washrooms, cafeteria, music room, mechanical room, front door
- choose a classroom that doesn't face onto busy streets or playgrounds
- replace single-glazed windows with double or triple-glazed windows to reduce sound transmission
- insulate all interior walls, floors and ceilings to prevent noise overflow from neighbouring rooms
- place weather-stripping around the doors.

Internal noise sources:

- locate desks away from sources of unavoidable noise within the classroom (pencil sharpeners, animals, fish tanks, etc.)
- use newer overhead projectors that do not have noisy fans
- use a video cassette recorder instead of a film projector, whenever possible
- renovate or replace noisy heating/ventilation systems.

Student-generated noise:

- place old tennis balls, with a small "X" cut into the tops, around the bottoms of all chair and desk legs to reduce chair and desk noise
- consider the use of an electric pencil sharpener
- teach lessons regarding auditory clutter and the impact of noise in the classroom, and encourage students to monitor the noise level within the classroom.

Reverberation (Echo)

Walls:

- put up cork bulletin boards, pictures, corrugated cardboard, egg cartons, "slices" of carpet-roll ends, or any textured materials on smooth wall surfaces.

Windows:

- use heavy, lined drapes to absorb sound (keep drapes closed).

Floors:

- cover the entire floor area with carpeting (using an area rug does not make any significant overall difference to the noise level within a classroom).

Ceilings:

- hang mobiles or other artwork from the ceiling to effectively lower the ceiling
- renovate high, smooth plaster or wooden ceilings with acoustic tiles.

Distance from the Speaker

Arrange the desks so that the teacher and student can maintain close auditory and visual contact. Use:

- a U or V-shaped arrangement
- a half-circle or circular shaped arrangement
- multi-group seating arrangements in a circle or half-circle shape.

Using an Interpreter

An interpreter in an educational setting is a member of a school's educational team with the specific responsibility of providing communication access between students who are deaf or hard of hearing and others.

There are two types of educational interpreters: sign language interpreters who use signs to communicate and oral interpreters who provide a visual-mouthed, non-voiced translation of what the speaker is saying.

Both types of interpreters provide reverse interpretation. The interpreter can relay a message from a hearing person to a student who is deaf or hard or hearing by signing, and can voice the signed message of a student who is deaf or hard of hearing to a hearing person.

It is important for the teacher to establish a positive working relationship with the interpreter. Suggestions include:

- Hold regular meetings to discuss daily, weekly or long-range programming plans. This will allow the sign/oral interpreter opportunity to:
  - become familiar with topics and vocabulary which will be taught
  - research signs or visible spoken vocabulary which may be required for video presentations or lectures containing idiomatic, figurative or technical information.

- Use strategies which support the student's ability to observe the interpreter:
  - position the student and interpreter where they are in close proximity to the area of instruction
  - be flexible in allowing the interpreter to stand or sit in a location most conducive to student understanding; e.g., in some instances, the interpreter may need to stand next to the teacher
  - avoid movement which may obstruct the student's view of the interpreter
  - ensure that lighting is appropriate, particularly when using an overhead or giving television/video presentations.

- Look at the student rather than the interpreter when speaking to a student who is deaf or hard of hearing.

- Speak at a normal rate. This will generally allow the interpreter to provide a smoother interpretation.

- Permit the interpreter to ask for clarification or repetition of information, particularly when class discussion is taking place.

- Provide opportunities for rest for the interpreter, particularly after lengthy videos, assemblies or concerts. If possible, have more than one interpreter available when interpretation is expected for periods of over an hour. Interpreting can be physically exhausting.

- Facilitate basic sign communication for teachers and classmates by:

- having the interpreter provide sign language instruction to the class as part of the daily schedule
- incorporating sign language phrases and sign vocabulary during specific subject instruction
- providing a sign language display in the classroom; the signs should relate to subject vocabulary
- starting sign language clubs to develop a larger signing community.

For more information on the use of an interpreter, see Alberta Education's *The Use of an Interpreter in an Educational Setting: Guidelines and Standards*, listed in the bibliography on page DHH.78.

Modifying Instructional Practice

This section offers strategies for providing instruction to students who are deaf or hard of hearing. Additional strategies are provided in the *Programming for Students with Special Needs* series, Book 1, *Teaching for Student Differences*.

Preteaching

Preteaching provides students who are deaf or hard of hearing with background information regarding a topic which is to be introduced in class.

Preteaching can be provided by someone other than the teacher, such as a peer, an older student, a classroom aide or parents.

Preteaching should include:
- the teaching of vocabulary and key concepts which relate to the curriculum
- the teaching of conventions of written English; e.g., spelling, capitalization, punctuation, verb tense and word endings
- the teaching of strategies which facilitate the comprehension of directions, deductive reasoning and inferential thinking.

Preteaching should be:
- scheduled at times other than core subject instruction
- should be acknowledged on the student's progress report
- shared with the parents regarding content and materials used.

Review

After the student has participated in preteaching and classroom instruction, it is crucial to review concepts and vocabulary. In order for the student to gain expertise, the concepts must be experienced repeatedly and in various environments in order for the information to be generalized.

Oral Directions

Information presented orally may be difficult for students to comprehend. The following suggestions may assist communication:
- use short sentences and present them sequentially
- verify that the student who is deaf or hard of hearing is aware of a change in topic, subject or speaker
- have the student paraphrase directions to verify their comprehension, or ask, "What are

you supposed to do?" It is best not to ask the student, "Do you understand?" as the common response is an unconditional "yes"
- chorale response by all students allows the student who is deaf or hard of hearing to feel part of the class, rather than one who is singled out
- oral presentation of information should be reinforced through repetition and visual representation.

Classroom Discussion

It may be difficult for the student with hearing loss to follow discussions. The following suggestions are provided to facilitate participation:

- allow the student some flexibility in seating
- identify speakers by name
- allow the student time to locate the speaker
- encourage students to speak one at a time
- develop a private cue for the student to quietly indicate when he or she has not understood
- write key words on the board
- paraphrase each student's comments
- announce a change in topic or focus.

Presentation of Key Information

Visual reinforcement is important for the student with a hearing loss. Information such as homework assignments, dates for exams, project deadlines and daily announcements over the intercom should be reinforced visually; e.g., written on the board.

Key points and key vocabulary should be noted on the board or overhead prior to instruction. This provides the student with a knowledge of what the class will focus on.

Lecture Strategies

Lectures should include a variety of visual supports so that the student is not required to rely only on auditory input. The following adaptations may facilitate learning for the student with hearing loss.

- A visual outline of the lecture provides the student with the organizational outline of the presentation so the student can anticipate what will come next. The outline can be spaced so that the student can use the form for note-taking. The outline may be provided to each student and/or presented on the overhead projector.

- A slot outline is a presentation of the lecture in a cloze format. The outline is provided prior to the teacher's presentation and the student is required to fill in the blanks based on the information heard. This gives the student training in the development of note-taking skills. The outline may be provided to each student and/or presented on the overhead projector.

- A structured overview is a visual aid to graphically present the major and minor topics of the lecture. The overview may be provided to each student and/or presented on the overhead projector.

- Mapping is another way to graphically present material to be learned. Mapping visually displays major and minor points and the relationship between them.

The following pages contain examples of these lecture strategies.

Cooperative Learning

Cooperative learning requires awareness of the needs of the student who is deaf or hard of hearing in group discussion.

The following suggestions may facilitate communication.

- If an FM system is in place, each speaker should be given the microphone.

- Each speaker should be identified and only one student in the group should speak at a time.

- The student who is deaf or hard of hearing should be seated next to the "recorder" so that the written information can be easily accessed. A copy of the notes should be provided to the student who is deaf or hard of hearing to review and recall what was said.

- The physical environment of group discussion may impair the ability of the student who is deaf or hard of hearing to hear what is spoken. The group may benefit from moving to a quieter location.

Lecture Strategies[1]

Visual Outline of Lecture

LECTURE OUTLINE

Canadian Government:

I. Federal
   - A. Governor General
   - B. House of Commons
   - C. Senate

II. Provincial
   - A. Lieutenant Governor
   - B. Premier
   - C. Members of Legislative Assembly

III. Municipal
   - A. Mayor
   - B. Councillors

Slot Outline

MUSCLES

I. Definition: Muscles are _____ which move body parts.

II. Numbers: About _____ muscles in human body
   About _____ % of male weight
   About _____ % of female weight

III. Types: Voluntary _____ be controlled
   ex. _____
   _____ cannot be controlled
   ex. _____

14:5 Three Kinds of Muscles

I. Smooth Muscles
   A. Involuntary
   B. Line walls of internal _____
   C. Ex. _____

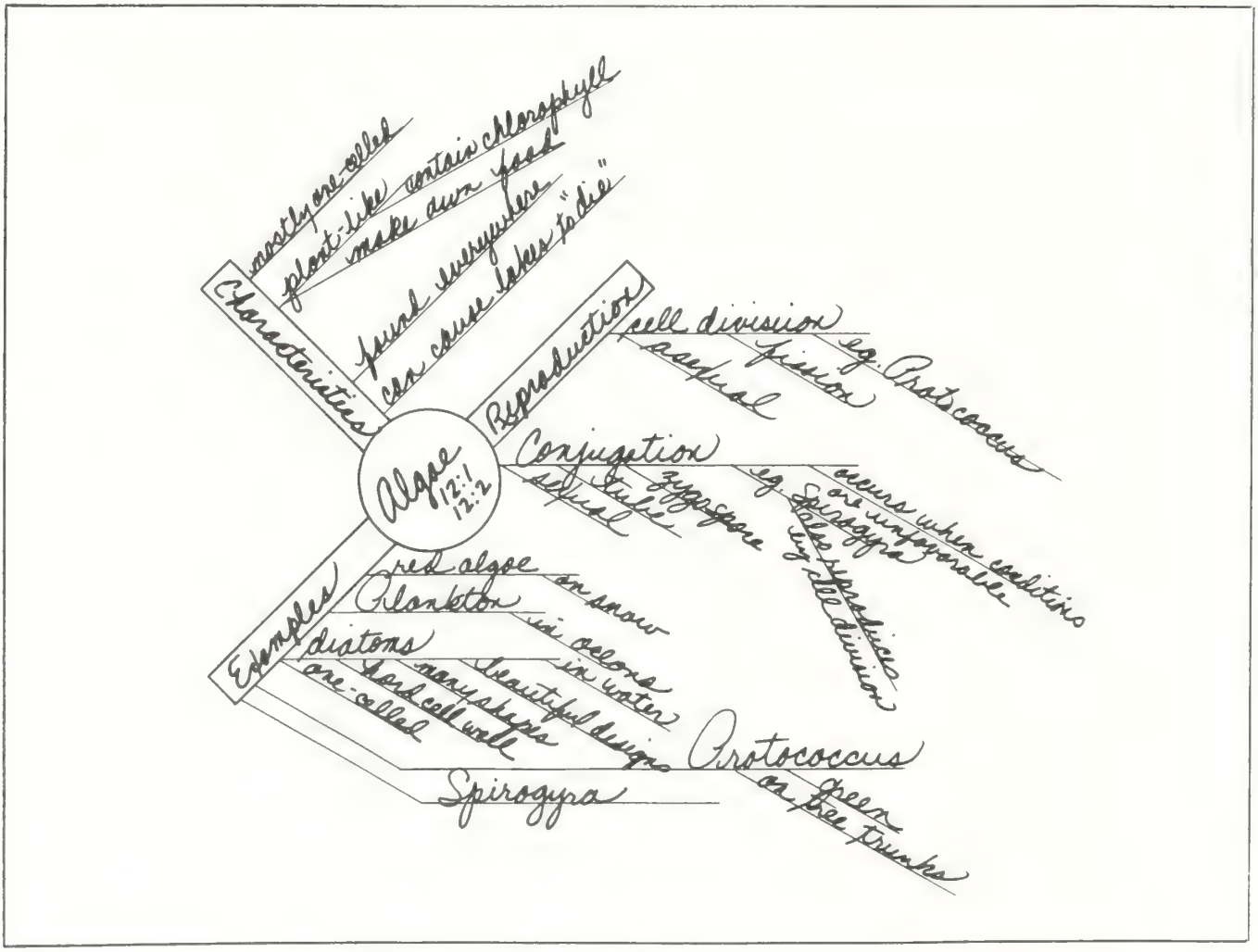
II. Striated Muscles
   A. _____
   B. Have bands called _____
   C. Also called _____
   D. Attached to bones by _____
   E. Move bones and limbs by _____ and relaxing

[1] From "Adapting the classroom lecture for the mainstreamed student in secondary schools," by J. W. Wood & M. Rosbe, 1985, *The Clearing House*, 58 (8), pp. 355–356. Reprinted with permission of the Helen Dwight Read Educational Foundation. Published by Heldref Publications, 1319 Eighteenth St. N W., Washington, DC 20036–1802. Copyright © 1985.

Structured Overview[1]

Structured Overview		
Government of Canada		
Federal	Provincial	Municipal
Governor General	Premier	Mayor
House of Commons	MLAs	Councillors
Senate		

Mapping



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Teacher Follow-up

The selection and implementation of instructional strategies are ongoing processes. Because different strategies are designed to achieve different goals and to respond to different student needs, periodically reviewing strategies helps ensure a range of strategies is used. Most teachers use a broad range: directive strategies, such as one-to-one and direct instruction; mediative strategies, such as open-ended discussion and concept formation; collaborative strategies, such as peer tutoring and cooperative learning; generative strategies, such as brainstorming and forecasting; and independent strategies, such as learning centres and science fairs.

Ultimately the effectiveness of a strategy is measured by whether or not the student can demonstrate the knowledge, skills or attitudes expected. Some tips:

- give a particular strategy time to work
- track the strategies used with a particular student
- do not discount a strategy simply because it did not work in the past; the timing or the setting may not have been appropriate
- be prepared, however, to modify or change a strategy if student feedback suggests it is not working.

In practice, ascertaining the effect of a particular strategy requires ongoing monitoring. Sample forms for teacher follow-up are provided in *Teaching for Student Differences*, Book #1 of the *Programming for Students with Special Needs* series, pages TSD.60–61.

The Buddy System

Using the buddy system allows the student who is deaf or hard of hearing the opportunity to be involved with classroom peers without the intervention of an adult. Frequently, students know what other students require and will intuitively respond to a classmate. This system also allows the student greater independence and promotes self-esteem.

It is best to assign a buddy for younger students and allow older students a choice of peers to establish the buddy partnership. It is also suggested that peer buddies be rotated so that no one student is responsible for extended periods of time. Activities in which the buddy may provide assistance include:

- ensuring that intercom messages are shared with the student who is deaf or hard of hearing
- signaling the student who is deaf or hard of hearing of a change in activity or topic
- ensuring that the student who is deaf or hard of hearing is aware of homework assignments and upcoming exams
- pairing for review of notes, teaming on projects, possibly facilitating peer relationships
- clarifying classroom procedures and materials
- reinforcing study skills.

Note-taking

Students who are deaf or hard of hearing need to watch the speaker to gather information. Students who rely on signed communication are required to attend to an interpreter as well.

It is important to understand that students who are deaf or hard of hearing are not able to observe the speaker, observe the interpreter (if present) and take notes simultaneously. Providing a student note-taker is recommended for lecture-type presentations. A note-taker may be a teacher assistant, team of peer volunteers (this works best if the students have above-average achievement), a student on work experience or a paid scribe.

Note-takers need to be:

- sensitive to concerns regarding hearing loss
- self-confident with role as liaison between student and teacher
- willing to accept direction from others; e.g., consultant, special needs coordinator, teacher of the deaf and hard of hearing.

The note-taker should be provided with carbon paper or have access to a photocopier immediately following the completion of the class. It is advisable that the note-taker provide the teacher with a copy of the notes so that the teacher is aware of the student's comprehension of the lecture content and can provide correction as required.

Laptop computer note-taking is another method. Information provided in a lecture format is recorded by a note-taker peer simultaneously as the speaker presents. The student who is deaf or hard of hearing reads the lecture on the laptop screen as it is presented. The notes are printed in triplicate for the note-taker peer, the student and the teacher.

Examinations

Examinations can pose considerable difficulty for the student who is deaf or hard of hearing. The language of directions and exam content may challenge the comprehension level of the student. The results of the examination should reflect the student's knowledge of the subject content. Each student's individual needs and requests require consideration.

Consider:

- providing simple, sequenced, clear directions at the student's level of understanding

- including a variety of visual information which supports written information; e.g., graph, charts, symbols

- increasing the time allocation to allow the student the opportunity to decipher the language, formulate a response and then edit content and conventions; e.g., spelling, punctuation, capitalization and grammar

- having the oral communications facilitator/sign language interpreter present the directions to the student using the student's mode of communication; the interpreter may need to see the exam ahead of time to prepare

- using a scribe to provide the student the opportunity to respond in an exam situation using oral and/or signed communication; the use of a scribe eliminates writing, which allows a more fluent response from the student who is deaf or hard of hearing; the role of the scribe is to

write exactly what has been said by the student

- providing a laptop computer to allow the student to respond in more fluent manner.

Information about special provision and/or exemptions from testing is included on page 7 in the Alberta Education document, "General Information Bulletin, Provincial Student Assessment Program Grades 3, 6 and 9."

Organizational Skill Building

Organizational skills are an integral part of student success and are essential to the success of the student who is deaf or hard of hearing.

Consider:

- using a daily planner for class schedules, homework assignments, subject review
- teaching time-management strategies
- developing study-skills strategies.

These skills need to be taught, practised and generalized in all subject areas. A daily agenda provides the student with a means of anticipating the events of the day. This information should be jotted down on the board and included in the opening exercises in the morning and afternoon. This strategy works well for students who remain in the same classroom for most of the day.

General Considerations

Fatigue

The concentration required for effective communication is tiring for the student who is deaf or hard of hearing. Consider varying the methods of presentation (lecture, practice, etc.) and providing short breaks in presentation to help students maintain their concentration.

Substitute Teachers

It is important that substitute teachers be made aware that there is a student who is deaf or hard of hearing in the classroom. Teachers should include the following with their seating and daily lesson plans:

- equipment needs
- teaching strategies, page DHH.25
- strategies for working with an interpreter or teacher assistant, page DHH.27
- File Review Form, page DHH.54.

Home-school Communication

Communication between the home and school is essential. A communication book can be used to provide information about:

- upcoming assignments
- concepts for review
- daily progress
- upcoming events
- changes to the routine
- concerns related to amplification.

Social Environment

It is important that all students learn in an environment which is welcoming and conducive to learning.

- Every effort should be made to include all students in all activities. The student who is deaf or hard of hearing should be included in social and recreational periods to encourage peer communication and social skill development.

- Provide inservicing to both staff and students on the topic of hearing loss by accessing consultants, teachers of the deaf and hard of hearing, teacher-assistants or communication aides who are knowledgeable about the various aspects of hearing, communication and amplification.

- If the student's preferred method of communication is sign language, encourage students and staff to learn and use sign language.

- Encourage other students to make use of communication strategies, such as establishing eye contact before communicating, speaking clearly and repeating or rephrasing statements.

- Make resources available, such as sign language books, fictional storybooks or novels and books about deafness in both the classroom and the school library.

Section VII
Appendix

Information From Parents or Guardians

General Information
To help create a complete picture of your child, could you provide the most recent academic and audiology reports as well as the following information:

General health and specific medical concerns _____

_____

_____

Information regarding your child's hearing loss _____

_____

The names of the professionals and agencies providing service to your child _____

_____

_____

Equipment Needs
To help me provide the most suitable means of assisting your child's learning, please provide the following information:

What specialized equipment does your child use (hearing aids, FM system, cochlear implant device)?

_____

When was your child's equipment last assessed and serviced. Were there any recommendations?

_____

_____

What various assistive devices are used within the home (FM, decoder, TDD/TTY, safety alarms)? _____

_____

Information on the use and care of the equipment your child will be using in the school

_____

_____

_____

Communication Needs
To help your child feel more comfortable communicating with people in the school, it would help to know the following information:

What form of communication is used in the home? _____

_____

What is the expected form of communication your child will use in the school?

_____

What is the most successful means of getting your child's attention in a group setting?

_____

What strategies are effective in helping your child understand what is being communicated?

_____

_____

Educational and Social Needs
In order to help your child feel comfortable and successful in the classroom setting, it would help to know the following information:

What concerns do you have regarding your child's transition into a new learning situation?

_____

_____

What are the areas of strength and the areas for growth?

_____

_____

What are the primary educational goals you have for your child this year?

_____

What hopes and expectations do you hold for your child's future?

_____

What is the degree of acceptance and knowledge that your child has with respect to his or her hearing loss and equipment?

_____

_____

Information From a Consultant or Teacher of the Deaf and Hard of Hearing

To help prepare appropriate programming, please provide the following information:

Hearing Loss and Amplification

An explanation of the student's hearing loss _____

_____

An explanation of the student's use of residual hearing in the classroom _____

_____

What equipment should be used (hearing aids, FM system, decoder)? _____

_____

An explanation of the use and care of equipment _____

_____

Guidelines for the use of hearing aids and the FM system throughout the program day

_____

Communication Needs

What is the most effective means of communicating with the student; e.g., hearing, speech, sign language? _____

_____

What are some strategies for effectively communicating with the student (receptive and expressive communication)? _____

_____

What are some strategies for developing a cooperative work environment with the educational interpreter to allow the student to fully participate in the class? _____

_____

What are some strategies for helping the student participate in group and class discussions?

_____

What adaptations are required when showing films, videos or audio presentations? _____

_____

_____

Educational and Social Needs

What are some strategies for adapting programming; i.e., instructional presentation?

What resource materials are available to support programming?

What are some strategies for instruction particular to the student; e.g., auditory management, speech, language, sign language?

What resource personnel provide support to the staff and the student; e.g., consultants for hearing education, speech-language pathologists, audiologists, itinerant teacher?

What are some strategies for including the student in group activities?

What are some strategies to help all students interact comfortably in formal and informal situations?

Questions to Ask the Student

In order to help you feel comfortable and experience success in the class, please answer the following questions:

Hearing and Amplification
What is your understanding of hearing loss in general and your hearing loss?

_____

_____

_____

Do you use hearing aids and a personal FM system? _____

_____

_____

What do you know about the use and care of the amplification systems? _____

_____

_____

Communication Needs
What is your preferred way to communicate?_____

_____

_____

How can an educational interpreter best meet your needs?_____

_____

_____

Where would you like to sit in the class so you can best see and hear the speaker? _____

_____

_____

Educational and Social Needs

Which of these people could help you in the classroom: an itinerant teacher to preview and review concepts, a peer tutor, a note-taker, a buddy, an interpreter?_____

What subject areas do you prefer and what subject areas do you find difficult?

What are your comments about your new educational setting?

Do you know which clubs, sport teams and activities are available in the school?

What are your leisure interests and activities at school?

Listening Check for Hearing Aids

Supplies Necessary for Listening to Hearing Aids and FM Systems:

- A battery tester which can test 9, 3 and 1.5 volt batteries. Available at stores that sell electronic equipment.
- A listening stethoscope is best obtained from the student's hearing aid dispenser or directly from an FM system manufacturer.

It is important to listen to the student's hearing aids on a regular basis to ensure that they are working properly. Parents and students may require instruction in the care and maintenance of hearing aids. The student should become responsible for ensuring that the hearing aids are in working order and they should help staff by checking the batteries and getting the listening stethoscope ready. Once familiar with checking the hearing aids, the listening check should not take more than a few minutes.

Follow these steps to complete the listening check:

1. Look at the hearing aid and earmold:
   - __ Is the hearing aid clean?
   - __ Is the earmold clean?
   - __ Is the earmold plugged with wax or water?
   - __ Is the earmold tubing plugged or cracked?
   - __ Is the earmold attached to the hearing aid properly?

2. Check the battery with a battery tester:
   - __ Replace the battery if necessary.
   - __ Is the battery inserted into the aid properly?

3. Attach the hearing aid or earmold to a listening stethoscope (steto clip) and turn the hearing aid on.

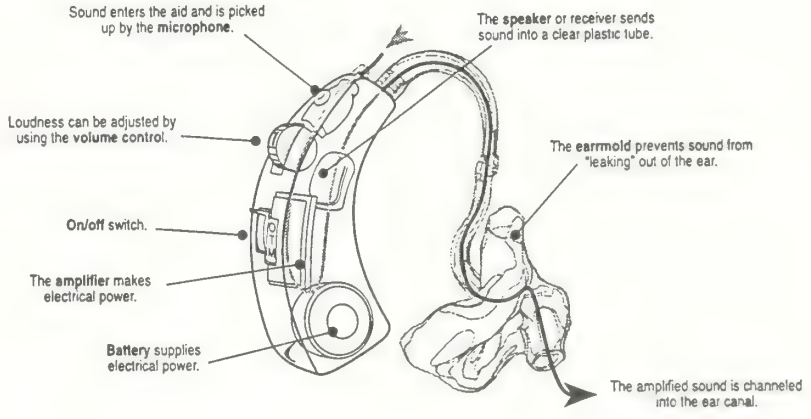
   Speak into the microphone:
   - __Listen to the overall sound quality for a variety of sounds (oo, ah, ee, sh, s).
   - __ Is the sound clear?
   - __ Is the sound distorted?
   - __ Is there any extra noise present?

   Rotate the volume wheel up and down:
   - __ Is there any scratchiness present?
   - __ Is there a good range from soft to loud?
   - __ Does the sound cut in and out (intermittent function)?

   Wiggle the on/off switch:
   - __ Is the switch working?
   - __ Is it loose?

4. Check the troubleshooting list if you are unable to fix any problems.

Keep a record of any problems so that you can share the information with the student's parents or audiologist.


Sound enters the aid and is picked up by the **microphone**.
The **speaker** or receiver sends sound into a clear plastic tube.
Loudness can be adjusted by using the **volume control**.
The **earmold** prevents sound from "leaking" out of the ear.
On/off switch.
The **amplifier** makes electrical power.
Battery supplies electrical power.
The amplified sound is channeled into the ear canal.

Hearing Aid Troubleshooting

The following information will help determine what is wrong with the student's hearing aid, and if there is anything that you can do at school to fix the problem. The information is organized by different types of hearing aid problems. To use this information, look for the symptom that describes what the hearing aid is doing (or not doing). If you are unable to correct the problem, contact the student's parents or audiologist.

- If there is no sound at all:
  - __ Is the hearing aid turned on? If not, turn the hearing aid on (to the "M" position).
  - __ Is the battery placed in the hearing aid properly? Change if necessary.
  - __ Is the battery working? Test it and replace if necessary.
  - __ Are the battery contacts clean? If possible, rub with a dry cloth.
  - __ Is the earmold plugged with wax or water? Wash the earmold or pull a pipe cleaner through the tubing.

- If the sound is distorted or unclear:
  - __ Is the hearing aid turned on? If not, turn the hearing aid on (to the "M" position).
  - __ Is the battery losing its charge (going dead)? Test and replace if necessary.
  - __ Is the earmold plugged with wax or water? Wash the earmold or pull a pipe cleaner through the tubing.

- If the sound cuts in and out (intermittent function):
  - __ Are the on/off and volume control switches dirty? Wipe with a dry cloth.
  - __ Are the battery contacts clean? If possible, rub with a dry cloth.
  - __ Is the earmold plugged with wax or water? Wash the earmold or pull a pipe cleaner through the tubing.

- If the sound is weak:
  - __ Is the volume control at the normal setting? Return to usual setting.
  - __ Is the battery losing its charge (going dead)? Test and replace if necessary.

- If the hearing aid or earmold is whistling while being checked
  - __ Is the listening stethoscope placed properly in your ears? Reposition the stethoscope.
  - __ Is the volume control set too loud? Turn down the volume.

- If the hearing aids or earmolds are whistling while being worn by the student:
  - __ Are the earmolds placed in the ears properly? Check and re-position if necessary.
  - __ Do the earmolds look too small? Have the parents contact the student's audiologist or hearing aid dispenser.
  - __ Are the volume controls at the correct levels? Check and reset if necessary.

Listening Check for FM Systems

Supplies Necessary for Listening to Hearing Aids and FM Systems:

- A battery tester which can test 9, 3 and 1.5 volt batteries. Available at stores which sell electronic equipment.
- A listening stethoscope is best obtained from the student's hearing aid dispenser or directly from an FM system manufacturer.

It is important to listen to the student's FM system on a daily basis to ensure that it is working properly. The student should help staff perform this task. Once familiar with checking the FM system, the listening check should not take more than a few minutes to complete.

You should perform a listening check on the hearing aids first, so that if the FM system is not working, you know that the problem is not caused by the hearing aids.

Follow these steps to complete the listening check:

1. Perform a listening check on the hearing aids to be used with the FM system.

2. Look at the FM system:
   - __ Is it clean?
   - __ Is the microphone attached properly?
   - __ Are the cords attached properly?

3. Check that both the receiver and transmitter batteries are charged:
   - __ Replace either battery if necessary.
   - __ Are the batteries inserted into the units properly?

4. Attach the FM receiver to the hearing aid or earmold and then to a listening stethoscope (steto clip), then turn on both units of the FM system and the hearing aid.

   Speak into the FM microphone, have someone else speak into the microphone, or place the microphone near a radio or television.
   - __ Listen to the overall sound quality for a variety of sounds (oo, ah, ee, sh, s).
   - __ Is the sound clear?
   - __ Is the sound distorted?
   - __ Is there any extra noise present?

   Rotate the volume wheel up and down:
   - __ Is there any scratchiness present?
   - __ Is there a good range from soft to loud?
   - __ Does the sound cut in and out (intermittent function)?

   Wiggle the on/off switches and all cords and cord connections:
   - __ Does the sound remain clear?
   - __ Does the sound cut in and out (intermittent function)?

5. Check the troubleshooting list if you are unable to fix any problems.

Keep record of any problems so that you can share the information with the student's parents or audiologist.

FM System Troubleshooting

The following information will help determine what is wrong with the student's FM system, and if there is anything that you can do at school to fix the problem. The information is organized by different types of FM system problems. To use this information, look for the symptom that describes what the FM system is doing (or not doing). If you are unable to correct the problem, contact the student's audiologist or the FM system manufacturer.

- If there is no sound at all:
  - __ Did you troubleshoot the hearing aid without the FM system?
  - __ Is the hearing aid attached correctly to the FM system ? Change if necessary.
  - __ Is the listening stethoscope placed in ears properly? Reposition if necessary.
  - __ Is the hearing aid turned on? The hearing aid must be turned on for the FM signal to be heard.
  - __ Is the hearing aid set to receive the FM signal? Check hearing aid (or "boot") switches.
  - __ Is the hearing aid volume set to the correct level? Reposition if necessary.
  - __ Are both the FM transmitter and receiver turned on? Both the receiver and transmitter must be turned on for the FM system to work.
  - __ Is the FM volume set to the correct level? Reposition if necessary.
  - __ Are the channel crystals on the FM transmitter and receiver firmly in place? Reposition if necessary.
  - __ Are the FM transmitter and receiver on the same channel? Colours or numbers must match.
  - __ Is the FM microphone plugged into the proper place on the FM transmitter? Reposition if necessary.
  - __ Are the transducer cords plugged into the correct places on the FM receiver? Reposition if necessary.
  - __ Are all the cords plugged in firmly? Push all cords in firmly.
  - __ Do any of the cords have broken jack prongs? Check and replace cords if necessary.
  - __ Are any of the cords broken? Replace.
  - __ Are the FM batteries charged? Test and replace if necessary.
  - __ Are the FM batteries placed correctly within the units? Reposition if necessary.
  - __ Are the FM batteries touching the contact plates? Push the batteries against the contact plates or carefully pull out the plates to make better contact with the batteries.
- If the sound is distorted or unclear:
  - __ Is the FM microphone switch set to the correct position? Reposition if necessary.
  - __ Are the batteries losing their charge (going dead)? Test and replace if necessary.
  - __ Is the microphone cord plugged into the proper side? Reposition if necessary.
  - __ Are all the cords plugged in firmly? Push all cords in firmly.
  - __ Are any of the cords broken? Replace.

__ Is the antenna (microphone cord) hanging freely, away from clothing and hands? The antenna must be allowed to hang freely, without being "fiddled with."
__ Are the volume controls at the correct level? Reposition if necessary.

- If the sound cuts in and out (intermittent function):
  __ Are all the cords plugged in firmly? Push all cords in firmly.
  __ Are any of the cords broken? Replace.
  __ Are the FM batteries touching the contact plates? Push the batteries against the contact plates, or carefully pull out the plates to make better contact with the batteries.
  __ Are the switches dirty? Wipe with a dry cloth.

- If the sound is weak:
  __ Are the batteries losing their charge (going dead)? Test and replace if necessary.
  __ Is the antenna (microphone cord) broken? Replace.
  __ Is the antenna (microphone cord) hanging freely, away from clothing and hands? The antenna must be allowed to hang freely, without being "fiddled with."
  __ Are the transducer cords plugged into the proper sides? Reposition if necessary.
  __ Are all cords plugged in firmly? Push all cords in firmly.
  __ Are the volume controls at the correct level? Reposition if necessary.

- If the receiver "No FM" light is on:
  __ Is the transmitter turned on? Both the transmitter and receiver must be turned on.
  __ Are the microphone and transducer cords plugged into the proper sides? Reposition if necessary.
  __ Is the transmitter battery losing its charge (going dead)? Test and replace if necessary.
  __ Are the transmitter and receiver on the same channel? Colours or numbers must match.

- If the transmitter "No FM" light is on steadily:
  __ Is the transmitter using the proper channel? Reposition if necessary.
  __ Is the microphone plugged into the correct side? Reposition if necessary.
  __ Is the transmitter battery losing its charge (going dead)? Test and replace if necessary.

- If the transmitter "No FM" light flashes:
  __ Is the microphone cord plugged into the correct side? Reposition if necessary.
  __ Is the microphone cord plugged in firmly? Push cord in firmly.
  __ Is the microphone cord broken? Replace.

- If the "Low Battery" light flashes on either the transmitter or receiver:
  __ The battery is losing its charge (going dead). Replace.

- If the batteries don't last a full day, or as long as in the past:
  __ Are the correct batteries being used? Replace if necessary.

___ Are the batteries old? Contact the manufacturer for their suggested battery life. Replace if necessary.
___ Have the batteries gained a "memory" from frequently being charged before the current has been fully drained? Replace.
___ Is the battery charger functioning properly? Monitor its function with another system or with a different battery in the FM system and call the manufacturer if you have questions.
___ Are the batteries being given a long enough period of time to charge completely? Most batteries need at least 10 hours to charge.

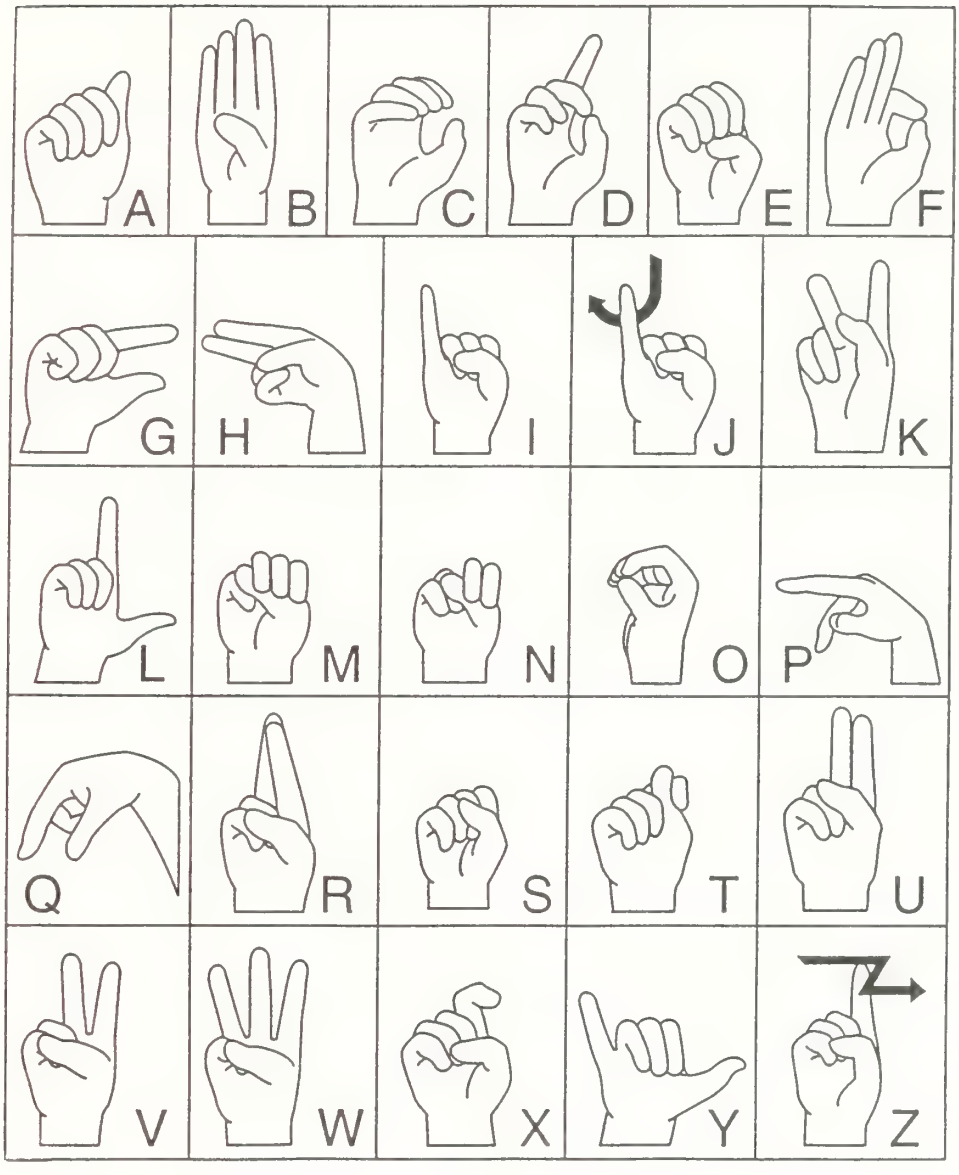
- If the batteries are not charged after 10–12 hours:
  ___ Are the correct batteries being used? Replace if necessary.
  ___ Are the batteries old? Contact the manufacturer for their suggested battery life. Replace if necessary.
  ___ Are the units placed into the charging unit or plugged in properly? Reposition if necessary.
  ___ Is the battery charger plugged in? The charger must be plugged in.
  ___ Is the battery charger turned on? The charger must be left on the entire time that the batteries are being charged.
  ___ Is the battery charger cord broken? Replace.
  ___ Is the battery charger functioning properly? Monitor its function with different batteries or FM systems and call the manufacturer if you have questions.

- The FM system or hearing aid is whistling while being checked:
  ___ Is the listening stethoscope placed properly in the ears? Reposition if necessary.
  ___ Is the volume control set too loud? Reposition if necessary.

- If the FM system or hearing aid is whistling while being worn:
  ___ Are the earmolds placed in the ears properly? Reposition if necessary.
  ___ Do the earmolds look too small? Ask the student's parents to contact the audiologist or hearing aid dispenser.
  ___ Are the volume controls at the correct levels? Reposition if necessary.

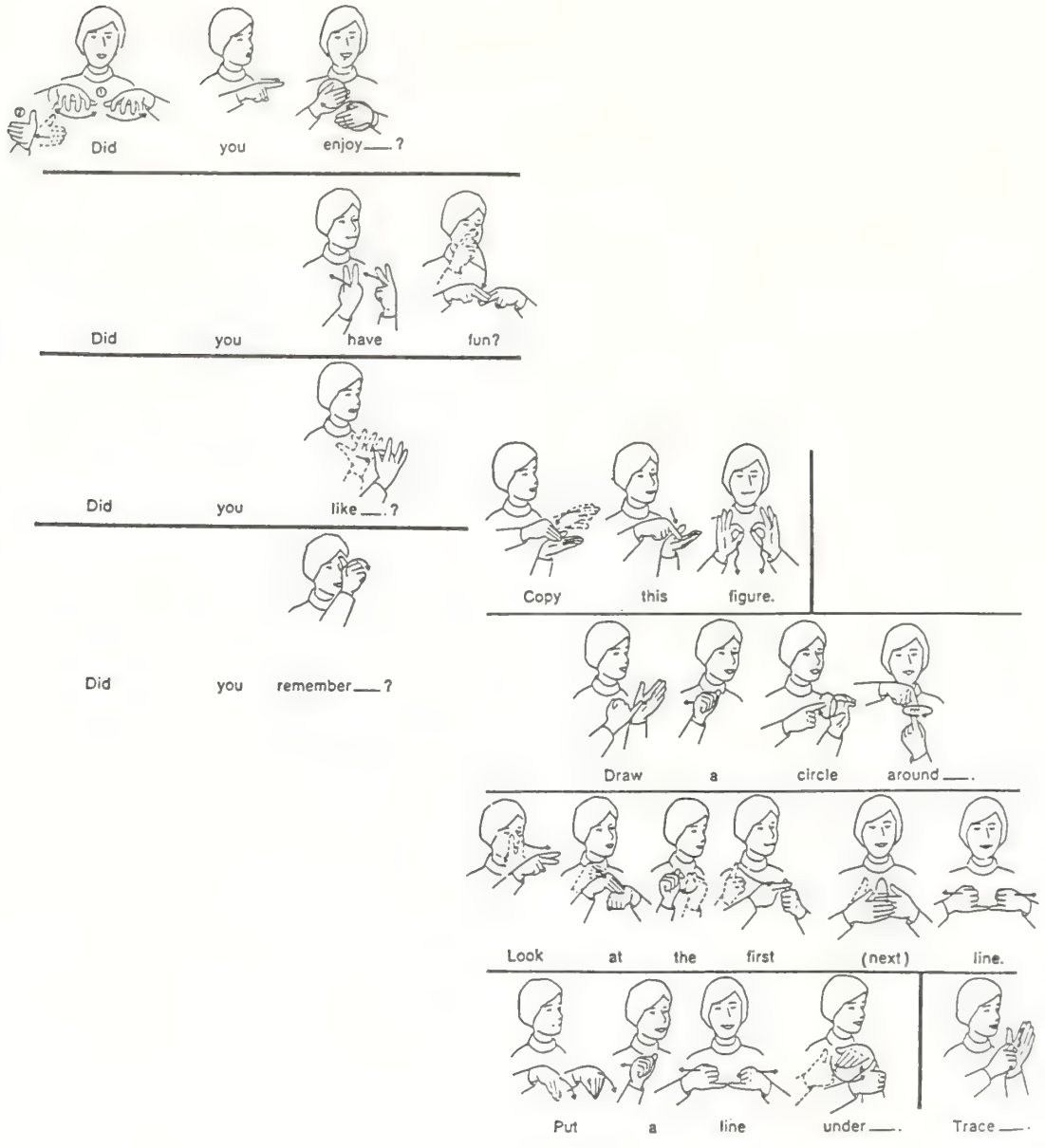
- If there is no auxiliary function with use of audiovisual equipment:
  ___ Is the transmitter hooked up to the equipment correctly? Contact the student's audiologist or the FM system manufacturer to get instructions for using auxiliary equipment.
  ___ Is the auxiliary cord plugged into the proper side? Reposition if necessary.
  ___ Is the auxiliary cord plugged in firmly? Push the cord in firmly.
  ___ Is the auxiliary cord broken? Replace.
  ___ Are both the transmitter and receiver turned on? Both units must be on, even for using auxiliary equipment.
  ___ Is the transmitter switch set to receive the auxiliary signal? Reposition if necessary.
  ___ Is the auxiliary cord compatible with the equipment? Check with the manufacturer.

Finger Spelling[2]



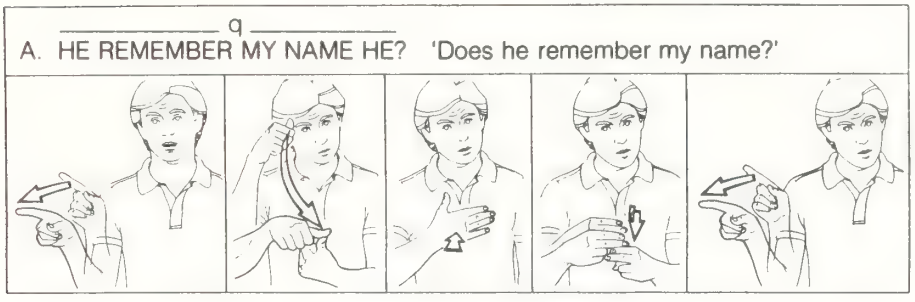
[2] From *Signing at school* (p. 5), by Stanley J. Collins, 1992, Eugene, OR: Garlic Press. Reprinted with permission

Signs — English Word Order[3]



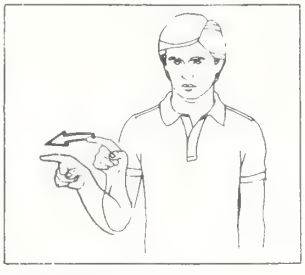
[3] From *Signed English in the classroom* (pp. 19, 53), by R. Miller, R. Saulnier, K. Luczak & H. Bornstein, 1979, Washington, DC: Gallaudet College Press. Reprinted with permission.

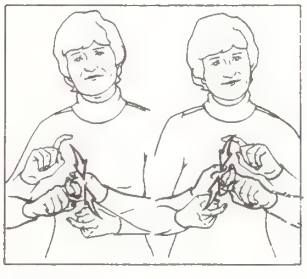
Examples of American Sign Language[4]

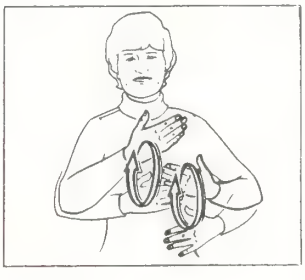


I, me

NAME


HE,SHE,IT, him, her


FRIEND


HAPPY

REMEMBER

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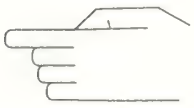
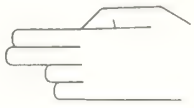
[4] From *A basic course in American sign language* (pp. 9, 10, 18, 30, 31, 36), by Tom Humphries, et al., 1980, Silver Spring, MD: T. J. Publishers. Reprinted with permission.

Cued Speech Signals[5]

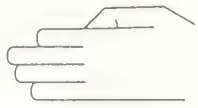
Consonant Handshapes



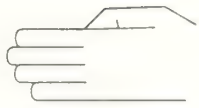
1. d/p/zh



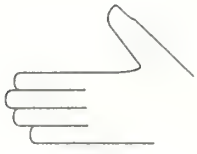
2. k/v/tH/z



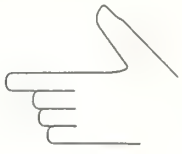
3. h/s/r



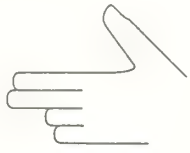
4. b/n/wh



5. t/m/f



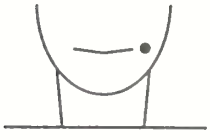
6. l/sh/w



7. g/j/th

8. ng/y/ch

Vowel Placements



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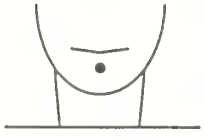
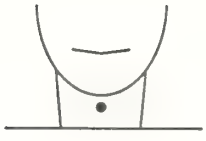


/ue, aw, e/



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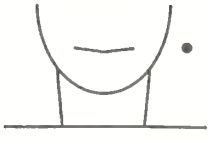
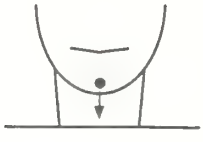


/oe, ah, u/



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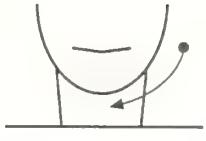

/ie, ou/

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[5] From *Choices in deafness: a parent's guide* (p. 26), edited by Sue Schwartz, 1987, Rockville, MD: Woodbine House. Reprinted with permission.

File Review

Identifying Information

Student name: _____

Date of birth: _____ Grade: _____

Address: _____ Telephone number: _____

Parents or Guardians: _____

Medical Reports

Medical diagnosis (including evidence of physical disabilities, neurological disorders and allergies): _____

_____

_____

_____

Hearing (Audiology Reports)

Date of test report/organization: _____

Type and degree of hearing loss: _____

Age of onset of hearing loss: _____

History of middle ear infections: _____

Amplification
Hearing Aid(s) Type: (R) _____ (L) _____

Volume setting: (R) _____ (L) _____

Cochlear implant information: Processor setting: _____

FM system: _____ Type _____

Volume setting: (R) _____ (L) _____

Communication
Mode(s) of communication:

Aural/Oral (speaking and listening): _____

Signed communication: _____

American Sign Language: _____

Speech-language pathologist, formal test results: _____

_____

_____

_____

_____

Educational Reports
Past educational setting: _____

_____

Formal test results:

Academic: _____

_____

Psychology: _____

_____

Teacher progress reports (report cards):

Academic level of student: _____

_____

_____

Vocational level of student: _____

Social skills: _____

_____

Work skills: _____

Individualized Program Plan (IPP)
Areas of strength: _____

_____

_____

Areas of need: _____

_____

_____

Ongoing goals: _____

_____

_____

Education & communication strategies: _____

_____

_____

Resource materials: _____

_____

_____

Support Personnel/Name
Teacher assistant: _____

Teacher assistant — sign language interpreter: _____

Educational interpreter — oral interpreter: _____

Consultants

Teacher of the deaf and hard of hearing: _____

Education consultant of the deaf and hard of hearing: _____

Audiologist: _____

Speech-language pathologist: _____

Social worker: _____

Occupational therapists/physiotherapists: _____

Hearing aid dispenser: _____

Equipment

TDD/TTY ❑ With Student ❑ In Office ❑

Decoder/telecaptioner: _____

Freefield amplification: _____

Communication board: _____

Computers and peripherals: _____

Visual display of intercom announcements: _____

Flashing light fire alarm: _____

File Review
Sample Completed Form

Identifying Information

Student name: Ken Stone

Date of birth: 8 yrs. old Grade: 2

Address: 1648 River St. Telephone number: 421-6508

Parents or Guardians: Bill & Donna

Medical Reports

Medical diagnosis (including evidence of physical disabilities, neurological disorders and allergies):

Hearing loss, allergies in spring.

Hearing (Audiology Reports)

Date of test report/organization: (See sample audiograms, pages DHH.10+11)

Type and degree of hearing loss: Severe to profound sensorineural bilateral

Age of onset of hearing loss: Congenital

History of middle ear infections: N/A

Amplification
Hearing Aid(s) Type: (R) Manufacturer (L) Manufacturer

Volume setting: (R) 4 (L) 3

Cochlear implant information: Processor setting: N/A

FM system: Type: Manufacturer

Volume setting: (R) 2 (L) 2

Communication
Mode(s) of communication:

Aural/Oral (speaking and listening): ✓ Main method of communication

Signed communication: ✓ depends on sign language for complete understandi

American Sign Language: ✓

Speech-language pathologist, formal test results: Age of testing 7.9 yrs. Language age 6.2 years. Articulation: moderate to severe delay, intelligibility best when context known (65%); delayed speechreading skills; goals (1) plurals, pronouns, tense (2) perception/reasoning (3) speechreading (4) d, s, th (voiceless) g, K

Educational Reports
Past educational setting: Previously in self-contained class for deaf and hard of hearing ECS - Grade 1

Formal test results:

Academic: Chronological age: 7.8; Reading: decoding Grade 1.2, Comprehension Gr 1.0; Math: computation Gr 2.0 Applications Gr. 1.2.

Psychology: Chronological age: 7.2; average cognitive skills

Teacher progress reports (report cards):

Academic level of student: Math: complete Gr. 1 program; reading: slow progress, comprehension weak, weak in understanding some basic concepts

Vocational level of student: N/A

Social skills: Gets along well with peers, cooperative

Work skills: Gives best effort, independent worker

Individualized Program Plan (IPP)

Areas of strength: friendly, careful worker, math - number facts

Areas of need: Speech intelligibility, vocabulary; reading (particularly comprehension), receptive and expressive language; math problem solving.

Ongoing goals: (1) Language: increase understanding and use of sentence patterns and basic concepts (2) Articulation: improve vocalization and correct articulation.

Education & communication strategies: Preferential seating - close to instructor/speaker; requires sign language interpreter, make instructions short and clear, backed with visuals.

Resource materials: Boehme Resource Guide for Basic Concept Teaching

Support Personnel/Name

Teacher assistant:

Teacher assistant — sign language interpreter: ✓

Educational interpreter — oral interpreter:

Consultants

Teacher of the deaf and hard of hearing: _____

Education consultant of the deaf and hard of hearing: ✓ _____

Audiologist: ✓ _____

Speech-language pathologist: _____

Social worker: _____

Occupational therapists/physiotherapists: _____

Hearing aid dispenser: ✓ _____

Equipment

TDD/TTY ☑ With Student ☐ In Office ☑

Decoder/telecaptioner: _____

Freefield amplification: _____

Communication board: ✓ Computer lab. _____

Computers and peripherals: _____

Visual display of intercom announcements: _____

Flashing light fire alarm: _____

Section VIII
Glossary

Assistive Devices: Technical aids for people who are deaf or hard of hearing. These include devices for the telephone (TTY, TDD, amplified handset); television (closed caption decoders), safety awareness (flashing lights).

Assistive Listening Devices: Technical aids to enhance listening ability in the presence of background noise. The FM system is the device most often found in schools.

Audiogram: A graphic representation of a person's hearing. It provides information about how loud sounds need to be, in order to be heard. The audiogram does not provide information about the quality of the sound heard.

Audiology: The field of study of hearing and hearing loss. An audiologist is a professional trained to assess hearing ability, make recommendations regarding amplification and follow-up for persons with hearing loss.

Auditory Training: Training that focuses on the identification and learning of environmental and speech sounds.

Closed Captioned Decoder: An electronic device which is attached to a television or video cassette recorder to enable viewers to read the dialogue of a television program, video or film.

Cochlear Implant: An amplification device that helps profoundly deaf people hear environmental sounds. It works by bypassing damaged inner ear structures to send electrical signals directly to the auditory nerve. Some of its internal parts are surgically placed inside the cochlea. The external part of an implant system looks much like a body-worn hearing aid, but is actually a sound-processing computer.

Conductive Hearing Loss: The type of hearing loss caused by damage to the outer and/or middle ears. This type of hearing loss can often be treated medically.

Cued Speech: Developed as a speechreading support system that uses 12 hand signals or cues. Eight cues are hand configurations used to differentiate between groups of consonants and four are hand positions near the face designed to differentiate between groups of vowel sounds.

Deaf: A term used to describe a person whose hearing is not used as the primary modality for speech perception and language acquisition.

Deaf Culture: the term used to identify a set of beliefs and practices shared by a group of deaf people who also share a common sign language.

Deafness: A hearing loss so severe that linguistic information cannot be processed through the ear, with or without a hearing aid.

Decibel (dB): The unit of measurement for the intensity of sound.

Educational Audiologist: A person who provides information to school staff on topics including the student's hearing, use of hearing in the classroom, use of amplification, classroom acoustics and classroom amplification systems.

Educational Audiology: A branch of audiology that focuses on the needs of students with hearing loss.

Educational Consultant: A consultant who provides information to school staff regarding programming for the student's academic, social and emotional achievement.

Educational Interpreter: Acts as communication facilitator for the student. The language of interpretation is determined through collaboration among the student, parent and school staff.

FM System: An assistive listening device through which the teacher's voice is transmitted to the student's hearing aids. Use of an FM system is an essential component to programming for students with hearing loss.

Freefield System: An assistive listening device which functions as a public address system within a classroom. It provides the benefits of an FM system to all students by enhancing the teacher's voice.

Frequency: The number of times a sound wave vibrates in a second measured in hertz. Frequency is perceived as pitch.

Hard of Hearing: Those people who, usually with the use of a hearing aid, have sufficient residual hearing to process linguistic information auditorally.

Hearing Aid: An electronic device which amplifies sound. A hearing aid must be individually selected in order to meet the hearing needs of the person with the hearing loss.

Hearing Aid Dispenser: A person responsible for fitting, monitoring and providing maintenance for the student's hearing aid(s). In some situations, the hearing aid dispenser may also be responsible for the student's FM system.

Hearing Impairment: The term used to describe hearing loss. See conductive, mixed and sensorineural hearing loss.

Hearing Loss: Any loss of sound sensitivity, partial or complete, produced by an abnormality anywhere in the hearing system. See conductive, mixed and sensorineural hearing loss, and residual hearing.

Hertz (Hz): The unit of measurement for the frequency of sound.

Intensity: The strength (amplitude) of a soundwave measured in decibels. Intensity is perceived as loudness.

Itinerant Teacher: Provides tutoring to students on topics selected in conjunction with school staff.

Message Relay Centre (MRC): A service which allows telephone communication between a person using a TTY/TDD and a person who does not have access to a TTY/TDD. Local message relay centres are listed in local telephone books. Additional MRC numbers are listed on page DHH.24.

Mixed Hearing Loss: The type of hearing loss caused by a combination of damage to the outer and/or middle ear and the inner ear. It is called a mixed hearing loss because it is a combination of a conductive and sensorineural hearing loss.

Residual Hearing: A term that is used in clinical audiology settings to describe the hearing that remains after damage to the ear has occurred.

Sensorineural Hearing Loss: A type of hearing loss caused by damage in the inner ear or auditory nerve. A sensorineural hearing loss is usually permanent.

Signal-to-Noise Ratio: The ratio between the desired sound (usually the teacher's or speaker's voice) and the level of background noise present.

Speechreading: The interpretation of facial expressions and lip movements for speech to augment the verbal message.

TTY/TDD: A communication device which attaches to the telephone and allows people to communicate over the telephone by typing their conversation.

Teacher: The person ultimately responsible for providing the program for the student with hearing loss. Educational objectives are established and directed by the teacher. The teacher is responsible for providing the assistant with programming materials for pre-and-post-test instruction.

Teacher Assistant/Aide: Facilitates the participation of the student's integration into classroom activities. The specific roles and responsibilities of this position are detailed in the job description.

Teacher Assistant Interpreter: Acts as a communication facilitator for the student. This person facilitates the participation of the student's integration into classroom activities. The teacher is responsible for providing the assistant with programming materials for pre-and-post-teaching instruction. The specific roles and responsibilities should be detailed in the job description.

Total Communication: Total communication refers to the use of amplified residual hearing concurrent with speech and signs, fingerspelling and speechreading.

Section IX
Other Teaching Resources

This listing is not to be construed as an explicit or implicit departmental approval for use of the resources listed. These titles are provided as a service only to assist school authorities to identify resources that contain potentially useful ideas. The responsibility to evaluate these resources prior to selection rests with the user, in accordance with any existing local policy.

Resources listed in this section can be ordered from the publishers. See pages DHH.74–76 for addresses.

Achiev series, red and blue (1990) by L. Zachman, M. Barrett & R. Huisingh. East Moline, IL: LinguiSystems.

A vocabulary development program for students ages four to 10. The vocabulary focuses on home and family (Red), community and special events (Blue). The program is based on a storybook and an activity book and is accompanied by student worksheets.

American Sign Language: a comprehensive dictionary (1981) by Martin Sternberg. Scarborough, ON: HarperCollins Canada Ltd.

This is a sign language dictionary which contains over 5 000 signs. An abridgement (1987), *American Sign Language dictionary*, presents an additional 3 300 signs.

Annie's world (1990) by Nancy Levinson. Washington , DC: (Kendall Green Publications), Gallaudet University Press.

A seventeen-year-old student who is deaf must deal with change when her family moves to a new city. Part of the change involves moving from a school for the deaf into a mainstreamed setting in a public high school. Junior high school level and above.

A Basic course in American Sign Language (1994) by Tom Humphries, Carol Padden & Terrence J. O'Rourke. Silver Springs, MD: T. J. Publishers.

An introduction to American Sign Language. Lessons include explanations, drills and exercises. The book may be used in combination with *A Basic course in American Sign Language videotapes*, a series of four videotapes.

Beginning sign language series (1992) by S. Harold Collins. Distributed by Monarch Books of Canada.

Beginning sign language series is a set of six booklets designed to assist adults and children in learning sign language. The easy-to-follow illustrations and activities make each book ideal for the beginning signer.

Signing at school
(ISBN 0–931993–47–4) includes sentences and vocabulary to enable a beginning signer to ask questions, get information, give greetings and directions.

Mother Goose in sign
(ISBN 0–931993–66–0) presents five Mother Goose rhymes in Signed English. The easy-to-follow illustrations teach how to sign Solomon Grundy; One, Two, Buckle My Shoe; The Crooked Sixpence; Old Mother Goose; and Thirty Days Has September.

Caring for young children
(ISBN 0–931993–58–X) is a book for those who work with young children in day care or babysitting situations. *Caring for young children* presents signs, sentences and vocabulary to help a beginning signer communicate with a hearing impaired child.

The *Finger alphabet* book
(ISBN 0–931993–46–6) teaches alphabet signs and starts you on your way to "talking" with your hands.

An Alphabet of animal signs
(ISBN 0–931993–65–2) presents A-to-Z animal signs and accompanying illustrations.

The *Can I help?* book
(ISBN 0–931993–57–1) presents signs, sentences and information to help a beginning signer communicate with a person with a hearing impairment.

Belonging (1987) by Virginia Scott. Washington, DC: (Kendall Green Publications), Gallaudet University Press.

Fifteen-year-old Gustie Blaine is on top of the world until she contracts a disease which leaves her deaf. Junior high school level.

Bridge reading kit (1983) by Alison Dewsbury, Jennifer Jennings & David Boyle. Toronto, ON: The Ontario Institute for Studies in Education. ISBN 0–77440255–5.

This picture-based reading program is designed to form a bridge between the understanding of gestures, their transformation into logographs and symbols to the world of print. The kit contains a teacher's handbook, 50 graduated readers, a complete set of pictures and two activity books. The kit is useful in teaching students prereading skills and provides a sight vocabulary of about 150 words. It also encourages students to begin to manipulate language and build their own stories. This kit helps students understand the abstract formation of language in a black-and-white concrete form that they can manipulate.

Colors (1987) by Susan Shroyer & Joan Kimmel. Greensboro, NC: Sugar Sign Press.

One of four books in the *Sign with me* series. The books focus on basic signs relating to counting skills to 10, the manual alphabet, vocabulary relating to weather and basic colours.

Communicating with the hearing impaired: an introductory course in sign language (1991). Princeton, NJ: Films for the Humanities & Sciences.

The goal of this video is to provide the viewer with an understanding of the nature of American Sign Language and with sufficient vocabulary to permit reasonable communication with the hearing impaired. The program covers fingerspelling, numbers, common phrases and specialized signs. An accompanying guide provides follow-up and review materials (38 minutes, colour).

The Comprehensive Signed English dictionary (1988) by Harry Bornstein, Karen Saulnier & Lillian Hamilton. Washington, DC: Gallaudet University Press.

A sign language dictionary comprised of over 3 000 signs and 14 grammatical markers used in Signed English.

Deaf heritage in Canada: a distinctive, diverse and enduring culture (September 1995) by Dr. Clifton F. Carbin. Whitby, ON: McGraw-Hill Ryerson Ltd. ISBN 0–07–551378–1.

Deaf heritage in Canada is a gathering of stories of the strength of a people determined to contribute to their country's heritage by leading rich and fulfilling personal lives.

Dr. Clifton F. Carbin discusses events in the United States and abroad that had significant impact on the lives of deaf Canadians. The story continues with the establishment of the first schools for deaf students in the provinces. These schools have contributed significantly to the development of the deaf community and have led to a deaf heritage that is rich in diversity, culture, language and history.

This comprehensive history also includes sections on religion, occupations, hobbies, sports, performing and visual arts, publications, organizations, military service, social and civil rights activities and other aspects of the lives of ordinary and not-so-ordinary deaf men and women.

The Developmental approach to successful listening II (DASL II) (1992) by Gayle G. Stout & Jill V. E. Windle. Englewood, CO: Resource Point Inc. Distributed by Cochlear Corporation.

The DASL II is a sequential step-by-step listening program for students with hearing loss. The program is composed of a hierarchy of listening skills to be taught in short, individualized training sessions. The curriculum is divided into sections such as sound awareness, phonetic listening and auditory comprehension.

Early communication skills (1991) by Charlotte Lynch & Julia Cooper. England: Winslow Press. Distributed by Monarch Books of Canada. ISBN 0–86388–096–7.

Early communication skills is a valuable resource for professionals looking for new educational and therapeutic ideas in their work with preschool children and their parents. Some sections will be of particular interest to those working with children who have a hearing loss – an area in which both authors specialize.

More than 100 communication-based activities provide a practical framework on which to plan programs of work and therapy. All ideas have been tried and tested by the authors and developed from their joint working experience. Based on 100 copyright-free activity sheets designed to be handed to parents for work in the home and to other key workers to encourage continuity and teamwork, the loose-leaf format has been developed to reflect the highly practical content.

Facilitating hearing and listening in young children (1994) by Carol Flexer. Akron, OH: The University of Akron. ISBN 1–879105–93–4.

To effectively integrate hearing into early intervention programming, the author presents critical information on the many aspects of hearing and hearing loss; the critical role of hearing in social, cognitive and linguistic development; the structure and function of the ear; types and degrees of hearing loss; behavioural and objective measurement; technological management; and facilitation of listening skills. The information is practical and is enhanced by checklists, fact sheets, American IFSP and IEP guidelines and

an extensive glossary of terms. This is a resource for audiologists and other early intervention personnel .

Finger alphabet lotto (1990). Distributed by Monarch Books of Canada. ISBN 0–931993–48–2.

Finger alphabet lotto is an excellent way to learn the alphabet and the manual signing alphabet.

The Five senses: hearing (1985) by Maria Rius, J. Parramon & J. Puig. Hauppauge, NY: Barron's Educational Series, Inc.

This book provides a simple explanation of the importance of hearing and its uses. The book is part of a series on the senses written for primary grade students.

Hearing (2nd edition) (1993) by Nigel Snell. London, ON: Evans Brothers Ltd.

One book in a series on the senses. It provides a simple explanation of the importance and uses of hearing. Best for primary grade students.

The Hearing aid handbook: users guide for children (1990) by Donna Wayner. Washington, DC: Clerc Books, Gallaudet University Press.

A sequenced orientation to the use and care of hearing aids. This manual is suitable for adults assisting the new hearing aid user.

I am your hearing aid (1992) by Danielle Moore & Jean Duncan. Edmonton, AB: Dr. James Battle & Associates.

A colouring book for preschool and elementary-aged students on the use and care of hearing aids.

An Introduction to American deaf culture (1987). Burtonsville, MD: Sign Media, Inc.

This five-part videotape series was written and developed by M. J. Bienvenu and Betty Colonomos. This series is a resource for deaf studies programs, interpreter preparation programs, sign language programs, educational programs for students who are deaf and anyone interested in this unique culture. Each tape contains a voice-over translation to make it fully accessible. The complete video series features the following tapes:

- Rules of social interaction
- Values
- Language and traditions
- Group norms
- Identity.

An Introduction to the deaf community (1993). Burtonsville, MD: Sign Media, Inc.

This 30-minute narrated and open captioned videotape provides a basic overview of deaf people in America, their language and their culture. The program is designed to help the viewer realize that preconceived notions and ways of thinking about deaf people may be inaccurate. A culturally-sensitive perspective is maintained throughout the program that encourages the viewer to begin to think of people who are deaf as members of a unique minority group.

The tape also provides information about national and international organizations of and for deaf people, employment opportunities, communication accessibility and resources to contact for further information. A special feature of the tape is a list of easy-to-follow, non-threatening communication tips and pointers. These tips and pointers can be beneficial when communicating with a person who is deaf.

Language and deafness (2nd edition) (1994) by Peter V. Paul & Stephen P. Quigley. San Diego, CA: Singular Publishing Group, Inc. Distributed by Brijan Resources Ltd. ISBN 1–56593–108–4.

The second edition of this already successful textbook updates and adds new information on language and deafness. The updated information includes an extensive treatment of American Sign Language, cognition and intelligence, bilingualism and second language assessment. The new text presents a detailed discussion of language tests that have been or can be used with children who are deaf or hard of hearing.

Language disorders in older students: preadolescents and adolescents (1995) by Vicki Lord Larson & Nancy McKinley. Eau Claire, WI: Thinking Publications. Distributed by Brijan Resources Ltd. ISBN 0–930599–29–2.

This book places language intervention with older students into a broad context. Professionals are made aware of the overlap between youth at risk and those with language deficits. It discusses the major transitions older students are expected to make, including the transition from high school to the world of work or to post-secondary education and the potential difficulties this poses to older students with language disorders.

Extensive and practical chapters are included on assessment and intervention issues. These chapters are backed up in the appendix section by an assortment of forms that may be duplicated for professional work. Dozens of tables and figures capture essential data professionals should know about older students. Subject and author indexes are included.

Listening for basic concepts (1990) by Brenda Brumbaugh & Nan Thompson-Trenta. East Moline, IL: LinguiSystems.

An active listening program for teaching basic concepts to students ages five to eight.

Listening for vocabulary (1992) by Brenda Brumbaugh & Nan Thompson-Trenta. East Moline, IL: LinguiSystems.

A theme-based approach to teaching vocabulary to students ages five to eight.

Listening skills (1989) by Annette Taulbee. Greenville, SC: Schaffer Publications.

A series of activity books aimed at improving a student's ability to listen and follow oral directions. Three levels: K–1, Grades 1–2 and Grades 2–3.

Matter and energy for beginners: electricity (1990). Richmond, BC: Magic Lantern Communications.

Closed captioned video. Investigator Alligator helps students learn the basics of electricity: what things use electricity, common sources of electricity, how wires provide a path for electric current, the components of a complete electric circuit and how a switch controls the flow of electricity. Designed for elementary level students (14 minutes, colour).

Matter and energy for beginners: magnets (1990). Richmond, BC: Magic Lantern Communications.

Closed captioned video. Investigator Alligator unravels the mystery of magnets by using the scientific method. Different magnets are found to stick to some objects but not others and some

magnets are stronger than others. Investigator Alligator solves the mystery of the bouncing rings by finding that like poles repel each other while opposite poles attract. Designed for students at the elementary level (14 minutes, colour).

MEER: Manual of Exercises for Expressive Reasoning (1986) by Linda Zachman, Carol Jorgensen & Mark Barrett. East Moline, IL: LinguiSystems.

Exercises are presented for teaching reasoning and abstract thinking skills. IPP goals are presented for each skill.

Micro-LADS (1992) by Laureate Learning Systems, Inc. Winooski, VT: Laureate Learning Systems, Inc. ISBN 1–56405–014–9.

Functional level of 24 months to six years and up. *Micro-LADS* (Microcomputer Language Assessment and Development System) is a series of seven modules designed to teach over 45 fundamental syntactic rules. Students are presented two or three pictures depending on the grammatical construction being trained, with optional speech and/or text and are asked to select the picture which represents the correct construction. Interface options include the Edmark TouchWindow or IBM PS/2 Touch Display, single switch, keyboard or mouse. Features which can be adjusted include scan speed, response time and criterion to end the lesson. Animation can be turned on or off. Lesson summary and test performance are available on-screen or in print. Records can be saved as data. Print size and volume can be increased for students with visual impairments or hearing loss.

Mouse's Christmas eve in Signed English (1986) by Lillian Hamilton, Karen Saulner, Howard Roy & Harry Bornstein. Washington, DC: (Kendall Green Publication), Gallaudet University Press.

One book in the "Signed English Series" for children. Information is presented through the use of pictures, print and signs. Children are exposed to basic vocabulary and simple sentences. The series includes such books as: *Count and Color*, *Firefighter Brown*, *Goldilocks and the Three Bears* and *We're Going to the Doctor*.

My first book of sign (1986) by Pamela Baker. Washington, DC: Gallaudet University Press.

Displays the signs for 150 words most frequently used by young children. Words are grouped alphabetically and each word is illustrated.

The Nonhearing world: understanding hearing loss (1993). Princeton, NJ: Films for the Humanities & Sciences.

This video explains sound, hearing, hearing loss and the relationship between listening to speech and different kinds of hearing loss. It includes realistic simulations of what speech sounds like with different kinds of hearing loss and useful hints on improving communication (17 minutes, colour).

Question the direction: a program for teaching careful listening and the questioning of unclear directions (1988) by Robert Mancuso. East Moline, IL: LinguiSystems Inc.

Designed for elementary students. The program consists of an audiocassette, teacher's manual and reproducible

workbook. Each lesson is accompanied by IPP goals.

Random House American Sign Language dictionary (1994) by Elaine Costello. Mississauga, ON: Random House, Inc.

A sign language dictionary which contains over 5 000 signs in an alphabetical format. Includes step-by-step instructions with each sign.

RAPP! Resource Activities for Peer Pragmatics (1986) by Nancy McConnell & Carolyn Blagden. East Moline, IL: LinguiSystems.

A role-play-based resource manual for teaching social communication skills for teenagers.

Reading milestones (1989) by Stephen Quigley & Cynthia King. Beaverton, OR: Dormac Inc.

A set of reading books and workbooks which are linguistically controlled and specifically designed for children who are deaf or hard of hearing.

Ready, set, listen (1991) by Cynthia Cavanagh, Shari Monson & Patti Halfman. East Moline, IL: LinguiSystems.

A practical sequenced listening program for non-readers. Includes hands-on activities and pictures which help students listen for sounds, questions, directions and other information.

The Secret in the dorm attic (1990) by Jean Andrews. Washington, DC: (Kendall Green Publications), Gallaudet University Press.

Four friends band together to solve a mystery. One book in the *Flying Fingers Club* series. Upper elementary or junior high school level.

Sesame Street sign language fun (1980) by Linda Bove. New York, NY: Random House/Children's Television Workshop. Distributed by the Canadian Cultural Society of the Deaf, Inc.

Sesame Street muppets introduce sign language to children.

Sign language house (1984) by Ralph Miller Sr. Berkely, CA: Dawn Sign Press.

Presents vocabulary relating to the home. One in a series of children's colouring books. Line drawings are combined with signs and fingerspelling. Other themes in the series include feelings, opposites and clowns.

Sign me a story (1987) by Linda Bove. Silver Spring, MD: T. J. Publishers Inc.

A 30-minute videotape featuring Linda Bove, the deaf actress from Sesame Street. Following a brief introduction to sign language, performers act out two popular fairy tales.

The Signed English school book (1984) by Harry Bornstein & Karen Saulnier. Washington, DC: (Kendall Green Publications), Gallaudet University Press.

Signs for instructional settings from preschool to high school.

The Signed English starter (1984) by Harry Bornstein & Karen Saulnier. Washington, DC: (Kendall Green Publications), Gallaudet University Press.

A basic course in the use of Signed English. The chapters are organized according to topic; e.g., clothing, transportation.

Signed finger alphabet cards (1988). Distributed by Monarch Books of Canada. ISBN 0–931993–00–9.

These 26 cards provide the basics for all signing. Beginners are provided with immediate reinforcement that spurs facility in signing.

Signed number cards (1988). Distributed by Monarch Books of Canada. ISBN 0–931993–02–2.

These 20 cards provide the basics for all signing. Beginners are provided with immediate reinforcement that spurs facility in signing.

Signs for me: basic sign language vocabulary for children, parents and teachers (1990) by Ben Bahan & Joe Dannis. Distributed by Monarch Books of Canada. ISBN 0–915035–27–8.

Provides a multi-dimensional sign language vocabulary for preschool and elementary school children. The authors introduce common household items, animals, family, verbs, emotions, safety and other concepts. Each of the vocabulary words features a picture, sign illustration and the English word.

Social language for teens (1993) by Gloria Turnbow & Deborah Proctor. East Moline, IL: LinguiSystems.

A social language program based on realistic teen-centered situations involving peers, family, jobs and school. Topics are suggested for discussion and role play.

Social language for teens: tackling real life situations (1993) by Ethel Herman & Karen Everrett. East Moline, IL: LinguiSystems.

A school year of exercises in semantics for teenagers.

Speech and the hearing impaired child, theory and practice (1976) by Daniel Ling. Washington, DC: Alexander Graham Bell Association.

A resource book on teaching speech for the hearing impaired.

A Speech guide for teachers and clinicians of hearing impaired children (1987) by Sandra Waling & Wayne Harrison. Tucson, AZ: Communication Skill Builders.

A basic guide of activities to promote speech acquisition.

Storybox readers (1986) by Joy Cowley et al. Scarborough, ON: Ginn Publishing Canada, Inc.

This is a series of readers for preschool to elementary aged students. The illustrations are clear and the vocabulary reinforced throughout the program. The series is developmentally sequential.

Teacher/clinician plan book and guide to the development of speech (1978) by Daniel Ling. Washington, DC: Alexander Graham Bell Association for the Deaf.

A resource guide for speech skill development.

A Very special friend (1989) by Dorothy Levi. Washington, DC: Gallaudet University Press.

The story of a friendship which develops between two young girls when a child who is deaf moves into the neighbourhood. For elementary aged students.

What happens when you listen? (1985) by Joy Richardson. London, UK: Evans Brothers Ltd.

An information and activity book on sound and hearing. Useful for primary grade students.

Wired for sound (1986) by Carole Simko. Washington, DC: (Kendall Green Publications), Gallaudet University Press.

An advanced student workbook on hearing and hearing aids for junior and senior high school students.

A Word in the hand: an introduction to sign language (1984) by Jane Kitterman & S. Harold Collins. Distributed by Monarch Books of Canada. ISBN 0–931993–08–3.

This book is for teachers in two distinctive settings — the classroom and community education.

A Word in the hand: book two (1991) by Jane Kitterman & S. Harold Collins. Distributed by Monarch Books of Canada. ISBN 0–931993–40–7.

This book picks up the basics acquired from book one to expand signing vocabulary and signing facility while simultaneously reinforcing the patterns of standard English. This second book is well suited for the structured classroom from middle grades through college. It is also well suited for the community setting where children, young adults and adults desire to advance signing skills.

You and your body, ears (1992) by Douglas Mathers. USA: Troll Associates.

A reference book on sound and hearing. This book is part of a series on the body and is suitable for elementary and junior high students.

Section X
Publishers' Addresses

Alexander Graham Bell Association
for the Deaf
3417 Volta Place NW
Washington, DC 20007–2778
USA
Telephone: (202) 337–5220

Barron's Educational Series
34 Armstrong Avenue
Georgetown, ON L7G 4R9
Telephone: 1–800–247–7160

Brijan Resources Ltd. (Jan Avis)
822 Burton Loop
Edmonton, AB T6R 2J2
Telephone: 1–800–567–1147
In Edmonton: (403) 430–8305

Canadian Cultural Society of the
Deaf, Inc.
House 144, 11337 – 61 Avenue
Edmonton, AB T6H 1M3
Telephone: (403)–436–2599 (TTY)
or
through the Ed Tel Relay Services
Telephone: #711 for Edmonton Area
or
AGT Relay Services (long distance)
1–800–855–1155 (TTY)
1–800–855–0511 (Voice/TTY)
and ask for (403) 436–2599

Cochlear Corporation
Suite 200
61 Inverness Drive East
Englewood, CO 80112
USA
Telephone: 1–800–458–4999

Communication Skill Builders
3830 East Bellevue
P.O. Box 42050–CS5
Tucson, AZ 85733
USA
Telephone: 1–800–866–4446

Dawn Sign Press
9080 Activity Road, Suite A
San Diego, CA 92126
USA
Telephone: (619) 549–5330

Dr. James Battle & Associates
406, 10053 - 111 Street
Edmonton, AB T5K 2H8
Telephone: (403) 488–1362

Dormac Inc.
P.O. Box 3903
Bellevue, WA
98009–3903
Telephone: 1–800–543–8032

Evans Brothers Ltd.
Distributed by Fitzhenry & Whiteside
Ltd.
195 Allstate Parkway
Markham, ON L3R 4T8
Telephone: (905) 477–2659
(905) 477-2499

Films for the Humanities & Sciences
P.O. Box 2053
Princeton, NJ 08543–2053
USA
Telephone: 1–800–257–5126
(609) 275–1400

Gallaudet University Press
800 Florida Avenue NE
Washington, DC 20002–3625
USA
Telephone: (202) 651–5488

Ginn Publishing Canada Inc.
3771 Victoria Park Avenue
Scarborough, ON M1W 2P9
Telephone: 1–800–361–6128

HarperCollins Canada Ltd.
1995 Markham Road
Scarborough, ON M1B 5M8
Telephone: 1–800–387–0117

Laureate Learning Systems, Inc.
110 East Spring Street
Winooski, VT 05404
USA
Telephone: (802) 655–4755

LinguiSystems, Inc.
3100 Fourth Avenue
P.O. Box 747
East Moline, IL 61244
USA
Telephone: (309) 755–2300

LinguiSystems Alberta Representative:
Virginia Wood
1408 Crescent Road NW
Calgary, AB T2M 4B1
Telephone: (403) 282–2441

Magic Lantern Communications
#201-6700 #3 Road
Richmond, BC V6Y 2C3
Telephone: 1–800–263–1818

McCracken Educational Services, Inc.
#15, 19257 Enterprise Way
Surrey, BC V3S 6J8
Telephone: 1–800–567–7505

McGraw-Hill Ryerson Limited
Attention: S. Tobin
Trade & Professional Division
300 Water Street
Whitby, ON L1N 9B6
Telephone: (905) 428–2222

Monarch Books of Canada
5000 Dufferin Street, Unit K
Downsview, ON M3H 5T5
Telephone: 1–800–404–7404

National Association of the Deaf
814 Thayer Avenue
Silver Spring, MD 20910
USA
Telephone: (301) 587–1788

The Ontario Institute for Studies
in Education
252 Bloor Street West
Toronto, ON M5S 1V6
Telephone: (416) 926–4723

Random House of Canada Ltd.
1265 Aerowood Drive
Mississauga, ON L4W 1B9
Telephone: 1–800–668–4247

Schaffer, Frank, Publications
23740 Hawthorne Blvd.
Terrance, CA 90505
USA
Telephone: (310) 378–1133

Sign Media, Inc.
4020 Blackburn Lane
Burtonsville, MD 20866
USA
Telephone: (301) 421–0268
(301) 421–4460 (TTY)

Sugar Sign Press
1407 Fairmont Street
Greensboro, NC 27403
USA
Telephone: (910) 273–9338

T. J. Publishers Inc.
817 Silver Spring Avenue, Suite 206
Silver Spring, MD 20910–4617
USA
Telephone: 1–800–999–1168
(301) 585–4440

Troll Associates
Distributed by Vanwell Publishing Ltd.
1 Northrup Cres.
P.O. Box 2131
St. Catherines, ON L2M 6P5
Telephone: 1–800–661–6136

The University of Akron Press
374B
Bierce Library
Akron, OH 44325-1703
USA
Telephone: (216) 972–5342

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[1] "Adapting the classroom lecture for the mainstreamed student in secondary schools," by J. W. Wood and M. Rosbe, 1985, *The Clearing House*, *58*(8), pp. 355–356. Reprinted with permission of the Helen Dwight Read Educational Foundation. Published by Heldref Publications, 1319 Eighteenth Street N.W., Washington, DC, 20036–1802. Copyright © 1985.

[2] *Signing at school* (p. 5), by Stanley J. Collins, 1992, Eugene, OR: Garlic Press.

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Katz, J. (ed). (1994). *Handbook of clinical audiology* (4th edition). Baltimore, MD: Williams and Wilkins.

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Martin, F. N. (1986). *Introduction to audiology* (3rd edition). Englewood Cliffs, NJ: Prentice-Hall.

Newby, H. A. & Popelka, G. R. (1992). *Audiology* (6th edition). Englewood Cliffs, NJ: Prentice-Hall.

Northern, J. L. (1991). *Hearing in children* (4th edition). Baltimore, MD: Williams and Wilkins.

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Alberta
EDUCATION

DATE DUE SLIP

5

Teaching Students with Visual Impairments

PROGRAMMING FOR STUDENTS WITH SPECIAL NEEDS

REFERENCE BOOK

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This document is intended for:

Students	
Teachers	✓
Administrators	✓
Counsellors	✓
Parents	
General Public	

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* Note: Throughout this document, the term "parents" refers to parents or guardians.

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Introduction

This resource offers basic information to help provide successful school experiences for students who are blind or visually impaired. Teaching a student with visual impairments may be challenging. However, like all students, these students have strengths and areas for growth. Many of their needs are the same as other students.

The information in this book will address:

- the student's visual impairment
- the specific needs of students with visual impairments
- the educational implications of visual impairment
- instructional strategies
- the use of technology
- the importance of orientation and mobility instruction
- terminology used in referring to visual impairments (see Glossary, page VI.66).

Section I
Nature of Visual Impairment

Visual impairment refers to a significant loss of vision, even though the person may wear corrective lenses. The nature and degree of visual impairment may vary significantly, so each student may require individual adaptations to instructional practices and materials in order to learn effectively.

Visual impairment includes two main categories: blindness and low vision.

Blindness — Legal blindness ranges from a visual acuity of 6/60 (20/200) in the better eye after correction, to having no usable vision or a field of vision reduced to an angle of 20 degrees. Visual acuity of 6/60 (20/200) means that the individual sees at six metres (20 feet) what is normally seen at 60 metres (200 feet). A reduced field of vision means that the individual has tunnel vision with limited peripheral vision.

Low Vision — is reduced central acuity or visual field loss which, even with the best optical correction provided by regular lenses, still results in visual impairment from a performance standpoint.

Most students with visual impairments have low vision. These students should be encouraged to use their residual (remaining) vision, when appropriate, using the necessary optical aids and adaptations. Students who are described as blind may have some usable vision.

Visual impairments are further classified as congenital or adventitious.

- Congenital refers to loss of vision present at birth. Some of the more common causes of congenital visual impairment are:
  – prematurity
  – genetic diseases
  – prenatal and perinatal infections
  – maternal substance abuse.

- Adventitious refers to loss of vision acquired after birth as a result of illness or accident.

The age and level of development of the student before the onset of the visual impairment, influence the student's ability to acquire skills and concepts. Students with congenital blindness may have difficulty acquiring concepts, while students with adventitious blindness may retain sufficient visual memory to benefit from visual descriptions.

Although two students may be medically assessed as having the same diagnosis and visual acuity, they may each learn and function in different ways. A student's vision may fluctuate or may be temporarily influenced by such factors as:

- the nature of the visual impairment
- fatigue
- glare
- inappropriate lighting
- medication
- general health.

If a student is experiencing learning difficulties, the teacher should be alert to the possibility that a student may have a vision problem and take appropriate action (see Appendix 18, pages VI.57–58).

Common Eye Conditions

The following are the most common eye conditions teachers may encounter.

Albinism: Albinism is a genetic condition in which there is a lack of normal pigment in the eyes and often in the skin and hair. Students with albinism usually have reduced visual acuity, sensitivity to light and nystagmus (see definition in the adjacent column).

Cataract: A cataract is an opacity or cloudiness of the lens of the eyes, sometimes present at birth. Students with cataracts have reduced visual acuity and hazy vision which makes near and distant visual activities difficult, particularly in bright light. They may have poor colour discrimination.

Cortical visual impairment: Cortical visual impairment is caused by damage to the visual cortex in the brain or the nerve pathways. Most students with cortical visual impairment also have other disabilities. The visual response from students with cortical visual impairment is inconsistent. Providing visual stimulation may improve the student's ability to process visual input.

Glaucoma: Glaucoma is a disease in which there is damage to the optic nerve, through increased pressure from the fluid within the eye, resulting in reduced visual acuity and loss of peripheral vision. The fluid pressure is monitored regularly by an ophthalmologist. Students with glaucoma generally have difficulty with mobility and focusing their gaze between near and distant objects.

Hyperopia: Hyperopia (far-sightedness) is a condition in which the rays of light entering the eye focus behind the retina instead of on the retina. Students with hyperopia can see more clearly at a distance.

Macular degeneration: Macular degeneration is an eye disease which results in gradual loss of central vision. Students with macular degeneration have difficulty reading print on the blackboard or page.

Myopia: Myopia (near-sightedness) is a condition in which the rays of light entering the eye focus in front of the retina instead of on the retina. Students with myopia can see more clearly up close.

Nystagmus: Nystagmus is involuntary movement of the eyes which can cause fatigue when carrying out visual tasks. Nystagmus is associated with many eye conditions or it may be the only diagnosis identified by an ophthalmologist.

Optic atrophy: Optic atrophy is the degeneration of the optic nerve fibres so that they are no longer able to transmit accurate visual images from the retina to the brain. An ophthalmologist will sometimes describe a student as having pale or grey optic disks in one or both eyes, which is an indication of optic atrophy. It is important to determine just how well the student can interpret what is seen both up close and at a distance.

Retinitis pigmentosa: Retinitis pigmentosa is a hereditary condition in which the retinal cells degenerate, particularly the rods which are responsible for peripheral and night vision. This results in a progressive narrowing of the field of vision, night blindness and often extreme sensitivity to light. Students with retinitis pigmentosa have difficulty with mobility, scanning the environment and reading print on the blackboard or page.

Retinopathy of prematurity: Retinopathy of prematurity is a disease of the retina in which the retinal blood vessels do not develop normally and scar tissue forms. Most students with retinopathy of prematurity benefit from the use of high illumination and magnifying aids.

Strabismus: Strabismus is a muscle imbalance which prevents the eyes from focusing together on a single point to achieve binocular vision. Students with strabismus may have significantly decreased vision in one eye and have difficulty with depth perception.

Needs and Expectations of Students with Visual Impairments

It is essential that students with visual impairments:

- be made welcome and given the opportunity to form social relationships within the school and wider community
- be challenged to take risks that enable growth
- be made aware of personal strengths, talents, learning styles and interests
- have opportunities for experiential and incidental learning
- be included in discussions
- have opportunities to develop goals, dreams and aspirations
- feel safe and comfortable throughout the school
- be provided with optimum lighting situations
- work with individuals who understand the educational implications of vision loss
- have appropriate learning resources and technology made available
- be provided with appropriate materials and adaptive equipment to maximize learning
- be provided with daily opportunities to experience success
- develop positive self-esteem
- have the same rights and responsibilities as other students
- be expected to behave appropriately
- communicate effectively
- become independent and resourceful
- plan early for meaningful careers
- become self-advocates.

Educational Implications of Visual Impairment

Students with visual impairments sometimes have fewer natural learning experiences because they are not able to observe objects and interactions. The areas of learning which are particularly affected are:

- concept development
- interpersonal communication skills
- life skills
- orientation and mobility skills
- academic development.

Development of concepts is the basis for all learning. Spatial relationships, time, body awareness and self-awareness are just a few examples of fundamental concepts individuals need to make sense of their world. These concepts may need to be specifically taught to students with visual impairments. Although the main focus will be on academic development, providing a variety of opportunities for personal development can have a profound impact on a student who is visually impaired. Encouraging a positive self-image, appropriate dress, well-developed self-care skills, good interpersonal communication, appropriate behaviours, increased independence and productive community living can all be tremendously beneficial in the healthy growth of students with visual impairments.

As with all students, relationships are important for students with visual impairments and the classroom can be a wonderful place for development and maturity to flourish.

Section II
Gathering Student Information

The sample file review form found in Appendix 1 (pages VI.31–33) will assist the teacher in obtaining a comprehensive overview of student information in the following areas:

- medical
- functional vision
- educational.

This form provides a guided process for reviewing student files and may be used as an information base in the development of the student's individualized program plan (IPP). It may be completed in consultation with an education consultant or itinerant teacher/strategist for students with visual impairments.

It is important that substitute teachers be made aware that there is a student with a visual impairment in the classroom. When preparing for absences, teachers should include the file review form, teaching strategies, seating and equipment needs in their lesson plans (see Appendix 21, page VI.65).

To facilitate the gathering of information, the student, parent and resource personnel may be interviewed by the teacher. Sample questions and a summary of information form are provided in Appendices 2–5 (pages VI.34–40).

Students with visual impairments are encouraged to undergo examinations by ophthalmologists and/or optometrists to determine the nature and degree of the visual impairment. The education consultant or itinerant teacher/strategist will interpret the medical report for school personnel and identify the educational implications.

Functional Vision Assessment

The education consultant or itinerant teacher/strategist for students with visual impairments develops a profile of the student's visual skills through a functional vision assessment. This profile, which conveys a picture of how the student sees, will assist the education team in developing the IPP and in augmenting teaching strategies.

A variety of assessment techniques and measures are used in the student's learning environment to determine how vision is used and what adaptations may be necessary. They include:

- file review
- ecological inventory (This is a list of the student's needs developed by analyzing the environmental domains in which the student functions.) See *Programming for Students with Special Needs*, Book 2, assessing, evaluating and communicating student growth, page ESS.43.
- student observation
- interviews with parent and teachers
- play-based assessment
- performance-based assessment
- assessment portfolios
- developmental checklists

- assessment tools for determining:
  - visual acuity, the finest detail the eye can see at near and far distances
  - visual fields, the student's degree of peripheral vision
  - depth perception, the student's degree of binocular vision, which is the ability of both eyes to work together
  - colour vision
  - appropriate reading and writing media (print, braille, audio)
  - appropriate technological aids and devices.

A functional vision assessment should be repeated when the student makes the transition to a different school or classroom setting, as the student matures, or on the recommendation of the education consultant or itinerant teacher/strategist for students with visual impairments. Growth and maturity can affect the student's vision and the underlying visual impairment may change with time.

The development of a student with a visual impairment is affected by:

- the type and severity of the visual impairment
- the onset of the visual impairment
- the nature and degree of intervention
- the use of residual vision
- personality
- the availability of equipment and resources
- the presence of other disabilities
- family adjustment and acceptance
- cultural attitudes to visual impairment.

The Education Team

Team building creates enthusiasm, trust and mutual support, which, in the long term, leads to more effective and efficient task accomplishment. Preparation, planning and cooperation build the framework for learning. Establishing good communication with students, parents and community resource personnel will foster the student's social, emotional, communicative and educational development.

There is often a range of support services required for the student with a visual impairment. It is important to have a contact person in the school designated to coordinate the student's program. The education team may include the:

- student
- parent
- teacher
- school administrator
- school counsellor
- teacher assistant
- education consultant for students with visual impairments
- itinerant teacher/strategist
- orientation and mobility specialist
- jurisdiction's coordinator for students with special needs.

Responsibilities of Team Members

For a description of the roles and responsibilities of the principal, classroom teacher, special education/resource room teacher, parents and students in providing programming for students, refer to *Programming for Students with Special Needs*, Book 3, *Individualized Program Plans*, IPP.12–13.

The teacher assistant, education consultant, itinerant teacher/strategist and the orientation and mobility specialist for students with visual impairments have specialized knowledge and responsibilities.

Teacher Assistant

The teacher assistant is part of the education team. The primary responsibility of the teacher assistant is to support the classroom teacher, enabling the teacher to provide an educational program that meets the needs of all of students in the class, including the student with a visual impairment. It is important to define the role of the teacher assistant. The teacher assistant needs to be sensitive to the interactions between the student and peers, facilitating these relationships and the natural support that peers can provide. Supporting the student with a visual impairment who uses braille as a reading mode, involves becoming proficient in the use of braille. Other tasks may include:

- assisting in the preparation of braille, large print, audio or tactile materials
- ordering materials from the Materials Resource Centre for the Visually Impaired (MRC) and acting as liaison between the school and the MRC (See Appendix 20, page VI.60–64 and Section XI, page VI.91 for more information.)
- facilitating the student's use of optical aids
- adapting the environment to meet the student's needs
- acting as a scribe
- assisting in concept development
- working individually with the student to reinforce the specialized skills.

Education Consultant

The title used to denote the education consultant for students with visual impairments may vary within the province but the service expectations are similar. The role of the education consultant is to respond to the needs of the teacher through the provision of assessment, consultation and inservices.

These services may include:

- **assessment** of the student's functional vision, appropriate reading and writing media, appropriate technology, need for optical and non-optical devices, orientation and mobility skills, and the evaluation of reading skills
- **consultation** regarding adapted materials, techniques for instruction, orientation and mobility, modification of the classroom environment, and strategies for inclusion
- **inservices** addressing the inclusion of the student with visual impairments in the classroom, eye conditions, orientation and mobility, braille literacy, and the social implications of a visual impairment.

Itinerant Teacher/Strategist

Itinerant teacher/strategists may provide many of the same services as education consultants, including assessment, consultation, inservices, assistance with program planning, and provision of adapted materials and equipment. The itinerant teacher/strategist can provide individual instruction in the specialized skills which the student must acquire to become an efficient learner, and a confident and independent individual.

Orientation and Mobility Specialist

Orientation and mobility specialists are trained to teach students with visual impairments the concepts, skills and techniques which enable them to travel safely, and function efficiently in different conditions and situations in the environment.

Section III
Strategies

This section offers strategies for providing instruction to students with visual impairments. It is suggested that the education consultant or itinerant teacher/strategist for students with visual impairments assess the specific needs of the individual student.

Accommodations may then be incorporated to meet the individual needs of students. A broad range of strategies is provided in *Programming for Students with Special Needs*, Book 1, *Teaching for Student Differences.*

Classroom Accommodation

Welcoming the Student

- Introduce the student with a visual impairment as you would any other student.
- Encourage the student to answer questions posed by other students concerning the eye condition. It may be necessary to teach the student how to describe the eye condition in simple terms.
- Verbalize praise and disapproval or use gestures, such as a reassuring hand on the shoulder. A student with a visual impairment is not reinforced or cautioned by facial expressions and body language.
- Be specific with descriptive language and avoid using terms like "here" or "there" when describing the location of a person or object.
- Talk directly to the student rather than through an accompanying person.
- Use a normal tone of voice.
- Feel comfortable when using words like "look" and "see." They are part of the language and the student is used to hearing them.
- Provide the student with the coat hook or locker closest to the door so it is easy to locate.

Safety

It is important to include the student with a visual impairment in the full spectrum of school life, including assemblies, field trips, work experience and special events. A student with a visual impairment faces extra challenges when getting used to the physical environment of the school. Everything from attending gym class to visiting the washroom can present possible difficulties. Emergency procedures, such as fire drills, require that a plan of action be in place. The following suggestions will help ensure the student's safety.

- Keep classrooms, corridors and stairs free of clutter.
- Ensure that the student is aware of any object or piece of furniture that has been moved.
- Highlight the edges of stairs and steps with contrasting coloured duct tape or brightly coloured paint.
- Close or fully open doors and cupboards.

- Ensure that teachers and students are familiar with the sighted guide technique (see Appendix 14, pages VI.50–51).
- Arrange for a peer buddy or adult to act as a sighted guide on field trips or in unfamiliar environments.
- Ask the student's permission before giving physical assistance.
- Remind students and staff to identify themselves by name when addressing the student or when passing the student in the hallway. This is not necessary if the student can already identify a particular voice.
- Teach the student when it is appropriate to talk to strangers or volunteer personal information.

Seating

The decision of where to place the student should be made with the student, parent and an education consultant or itinerant teacher/strategist for students with visual impairments.

- Usually, the student is seated at the front of the classroom so that the student can make the best use of functional vision and is in close proximity to the teacher.
- If the student has stronger vision in the right eye, seat towards the left of the classroom and vice versa.
- The student should not be facing direct light sources such as windows and lamps.
- The student may need a reading stand or tilt-topped desk, which can elevate reading and writing materials. This will allow the student to maintain good posture, alleviate fatigue, bring the material closer to the student's eyes and increase the lighting on the task. Constantly bending over work can cause back and neck strain.
- If the student uses a brailler, it is important for the desk top to be low enough for the student to press down on the keys. When seated, the student's feet should be flat on the floor.

Lighting

- Close the blinds or switch off overhead lighting if there is glare on the blackboard, computer screen or laminated materials. Flat-finish mac tac is available from department and hardware stores.
- Different levels of illumination are required, depending on the visual impairment. An education consultant or itinerant teacher/strategist for students with visual impairments will advise on whether natural light, artificial lighting, subdued lighting or a direct source of light is required.

Contrast

- Increase the contrast between an object and the background. Black and white, or black and yellow afford the best contrast. Use coloured place-mats, construction paper, swatches of fabric or matte-finished contact paper to achieve contrast.
- Numbers which contrast with the colour of the door make it easier for the student to locate the room.
- Avoid using materials with confusing patterns.
- Reduce visual distractions around an object.

Modifying Instructional Practice

It is beneficial to hold regular meetings with the education team, particularly those who will be working directly with the student. This provides the opportunity to discuss daily, weekly or long-range program plans, become familiar with the topics and vocabulary which will be taught, and discuss necessary adaptations.

Concept Development

Students with visual impairments need assistance in making the connection between vocabulary, and real objects, body movements and abstract ideas. These students miss much incidental learning available to the sighted student and frequently develop inaccurate concepts.

- Pre-teach vocabulary and key concepts which relate to the curriculum through verbal explanations and concrete experiences using a multisensory approach. For example, orient the student to the library before library time or develop the concept of the skeletal system with real bones.
- Pre-teaching can be provided by someone other than the teacher, such as a peer, an older student, a teacher assistant or parent.
- After the student has participated in pre-teaching and classroom instruction, it is crucial to review concepts and vocabulary. Say, "Describe what you understand by this term."
- Concepts must be experienced repeatedly in various environments in order for the information to be generalized and for the student to gain expertise.

Organizational Skills

Organizational skills are an integral part of student success and are essential to the student with a visual impairment. The student is unable to scan the environment efficiently to locate misplaced items.

- Have the student organize his or her personal work space.
- Provide the student with a definite place to put things, with the expectation that the student use this space.
- Use containers and zippered pencil cases to store objects.
- Provide a tray or cookie sheet for objects that may roll easily off the desk.
- Use techniques for safely locating and searching for dropped objects (see Appendix 17, page VI.55–56).
- Provide colour-coded folders, binders and note books.
- Attach braille labels to binders and folders for the student who uses braille.
- Provide sufficient space for materials and equipment.

Listening Skills

Students with visual impairments achieve much of their learning through listening, so it is important that they develop good listening skills. Listening skills are taught as an integral part of the language arts curriculum in the elementary grades and students with visual impairments will benefit from these activities. In addition, it will be necessary to teach the following.

Perceptual awareness and interpretation of environmental sounds

Teach students to:

- discriminate between different sounds
- locate the direction of sounds
- associate sounds with objects and situations.

Listening and interpreting oral information

Teach students:

- to listen for sequence
- to listen for details
- to listen for main ideas
- new vocabulary. Check that the vocabulary is within the student's experience and has meaning.

Listening to audiocassettes

Teach students to:

- minimize distractions to increase attending
- sit in an upright position to maintain auditory attention
- read the questions to be answered before listening to the information
- listen to the pertinent parts of the tape prior to the lesson
- play a short portion of the tape, stopping it to write notes
- adjust the speed of the recorder.

Listening to a reader

Having someone read to the student has the following advantages.

- The student has immediate access to the same reading materials as other students.
- The reader can scan the text to find appropriate material.
- The reader can give information on spelling and punctuation.
- This is often the most efficient means of taking tests.

Listening resources

Some resources which may be useful are:

- *Listen and Think* (see Section IX, page VI.76)
- *Teaching Peer Names and Voices to a Student with a Visual Impairment* (see Appendix 19, page VI.59).

Reading Skills

Reading requires the efficient use of visual skills such as tracking, scanning, fixating and shifting gaze. Students with low vision must exert more energy to read fluently and sustain reading over a longer period of time. Different adaptations may be required at different age levels. Students who use braille generally require more time than other students to read the assigned text.

- Use a multisensory approach when teaching the alphabet. Real objects should be used to illustrate the initial sounds of words.
- Modify the amount of reading and provide audiocassettes or a reader, if necessary.
- Use a line marker if the student has difficulty tracking and/or locating the place in the text.
- Encourage the student to highlight important information when reading.
- Use a typoscope or template over a page of print to locate the next line.
- Allow the student to hold the page as close to the eyes as is necessary to read the print.
- Allow the student to take breaks from visual tasks. Students may tire if they are engaged in visual tasks for extended periods of time.
- Encourage the student to take responsibility for requesting a break when needed.

- Intersperse visual activities with non-visual activities.
- Use bold, well-spaced letters as these are often easier to see than larger letters.
- Use highly contrasting letters to make print easier to read.

Writing Skills

- Allow the student to write in the size of print that is easy for the student to read and to hold the page as close to the eyes as is necessary to read.
- Legibility is more desirable than style or speed.
- Felt pens, primary pencils, raised and bold lined paper can be used to make the student's writing more legible and make it easier for the student to write.
- Teach students who use braille to write their signatures. Raised lined paper and signature guides are available.
- Provide access to a computer at an early age, especially if the student continues to demonstrate difficulty with writing skills.

Taking Notes

Note-taking can be a difficult task for students with visual impairments.

- Verbalize what is being written on the blackboard and encourage the student to listen or write down the main points.
- Provide photocopied peer or teacher notes.
- Keep blackboards clean and in good repair to allow for print clarity.
- Avoid using pastel colours which do not provide good contrast.
- Acknowledge that the student may have a preference for white or yellow chalk.
- Be alert to glare from the blackboard and make the necessary accommodations.
- Allow the student to go up to the blackboard or pull the desk closer in order to view or copy the material.
- Check whether or not the student can see specific materials. Say, "Tell me what you see," rather than, "Can you see?" Students may pretend to see or assume they do.
- Provide a scribe when necessary.
- Provide an audio, good quality print or braille copy of the notes.
- Check periodically to ensure that the student is making accurate notes.
- A lap-top computer which has audio, braille or large print capabilities can be useful.
- Keyboarding skills are important for a student with a visual impairment. Large print letter overlays are available for keyboards.

Mathematics Skills

There may be a number of gaps in the student's general knowledge which would normally have been gained through visual observation. Depending on the nature and degree of the student's visual impairment, materials may be prepared in Nemeth code or in large print. Nemeth code is a mathematical and scientific notation code in braille (see Appendix 9, page VI.44). A student may use a combination of Nemeth code, large print or magnification.

The following adaptations and equipment may be incorporated into the student's mathematics program to enhance learning.

- Speed may be improved by adapting or shortening assignments.

- A variety of materials and methods for use with young students are described in the teaching resources section. See *Chisanbop, Base Ten Blocks* and *Cranmer Abacus* on page VI.74, *Cube-a-Link Cubes* on page VI.75 and *Math-mate* and *Rap with the Facts* on page VI.77.
- Make braille or large-print flash cards.
- Raised pictures, diagrams and concrete objects are necessary to develop concepts. Simple raised outlines are preferred.
- Consumable large print mathematics workbooks and work sheets may be provided to prevent errors in copying and increase speed and efficiency.
- A combination of visual, auditory and tactile approaches should be used. Many manipulative materials available in the classroom can be used by students with visual impairments.

The following resources and equipment are available through the Materials Resource Centre for the Visually Impaired on a loan basis:

- large print consumable workbooks for Grades 1–6
- Focus in Mathematics program (kit)
- large print and braille text books
- speech output calculators
- geometric shape kits
- Sewell raised line drawing kit
- American Printing House for the Blind clocks with raised or brailled numerals
- Wikki Stix (kit)
- light box with levels 1, 2 and 3 materials.

See Appendix 20, pages VI.60–64 and Section IX, pages VI.74–82 for additional information.

To assist in adapting materials, the school may need to purchase:

- a tracing wheel and neoprene (rubber) mat
- coloured glue
- raised line or bold graph paper
- braille and large print measuring devices
- self-adhesive felt dots
- crochet cotton for tactile illustrations.

Assignments and Examinations

Assignments and examinations can pose considerable difficulty for the student with a visual impairment. Examination results should reflect the student's knowledge of the subject content. Each student's individual needs require consideration. The student may take more time to complete an assignment or examination than other students. Some of the following strategies may be used.

- Consider the student's well-being when assigning homework, particularly if it requires extensive reading or writing. A student with a visual impairment is often fatigued by the end of the school day and visual efficiency may be reduced.
- Avoid having the student recopy questions from the text to paper. Provide a copy of the questions so that the answers can be written directly on the question sheet.
- Allow additional time for completion of assignments and examinations.
- Allow the student to complete an examination in more than one sitting, if necessary.
- Reduce the number of examples required to demonstrate the student's understanding of a concept or mathematics operation.

- Reduce the number of questions to be answered.
- Provide an alternate way of testing the student's learning. Multiple choice questions are difficult because of the amount of visual scanning and accommodating required.
- Provide a scribe.
- Give the examination orally.
- Accept typed answers, a computer print out or answers recorded on an audiocassette.
- Avoid the use of computer answer sheets, including large print Scantron sheets. Allow an alternate way for the student to record answers and arrange for answers to be marked individually.
- Ensure that examinations have appropriately sized print of good quality.

Information about special provisions and/or exemption from testing is included in the Alberta Education document, *General Information Bulletin, Provincial Student Assessment Program Grades 3, 6 and 9*, and *General Information Bulletin, Diploma Examinations Program 12.*

Social and Life Skills

A visual impairment may interfere with the student's ability to observe appropriate social behaviours and to learn basic life skills. Social and life skills which other students learn naturally through observing others and modelling, must be taught specifically to the student with a visual impairment.

- Teach the student to turn and face the speaker. However, some students do have eccentric viewing and need to tilt the head in order to see the person to whom they are speaking.
- A student with a visual impairment may have mannerisms, such as rocking when seated or repeatedly rubbing the eyes. Such mannerisms can interfere with social interactions. This is a sensitive issue; professional advice should be sought. Contact an education consultant or itinerant teacher/strategist for students with visual impairments for information and strategies for helping the student modify this behaviour.
- Encourage the student to initiate a conversation or play activity. The student will often wait silently until someone else takes the initiative.
- Help the student to understand and respect the personal space of others. The student will also need to be able to ask others, in a courteous way, to respect his or her personal space.
- The student with a visual impairment will frequently need to explore objects tactually to gain information and form accurate concepts. However, it is necessary for the student to learn when it is acceptable to touch, particularly when this relates to appropriate and inappropriate physical contact.

- Provide counselling and support for adolescents. This service may be obtained through the Canadian National Institute for the Blind, a school counsellor, a psychologist, psychiatrist or an education consultant or itinerant teacher/strategist for students with visual impairments. This is the stage when students will experience puberty, learn about relationships and dating, and need to come to terms with the possibility of not being able to drive a car. It is particularly important for the student to develop a strong self-image at a time when peer acceptance is influenced by appearance and behaviour.

The sections on life skills and social skills in *Programming for Students with Special Needs,* Book 1, *Teaching for Student Differences*; and Book 2, *Essential and Supportive Skills for Students with Developmental Disabilities* offer many suggestions that are appropriate for teaching students with visual impairments.

Section IV
Specialized Materials and Equipment

Students with visual impairments may need a variety of specialized materials and equipment in order to function effectively in the school environment. Provide adequate space for storing student materials and equipment, which is easily accessible to the student. Students learn to read and write using braille or print. Order resources in the appropriate format from the Materials Resource Centre for the Visually Impaired (MRC). These include braille or large print books, audiocassettes and kits. Order the resources well in advance. Items needed for the beginning of the school year should be ordered in May.

The MRC produces an annual titles and subjects catalogue, and mid-year supplements, provided to schools with students who are registered with the MRC (see Appendix 20, pages VI.60–64 and Section XI, page VI.91). The MRC also produces the *Kits Subject Catalogue*, *Equipment Catalogue* and *Catalogue of Consumable Items*.

Braille

Braille is an embossed symbolic system which is read tactually. It is the specific placement of six raised dots which are numbered. Various arrangements of the dots make up 63 combinations, which are called cells and represent numerals, letters of the alphabet, and word contractions (see Appendix 6, page VI.41).

Braille is produced on a six-key manual or computerized braille writer (see Appendix 7, page VI.42).
The student learns braille literacy through a braille reading and writing program which is recommended, monitored and evaluated by the education consultant or itinerant teacher/strategist for students with visual impairments, and implemented by school personnel (see Appendices 6–10, pages VI.41–45). Incidental learning materials in braille or tactile format should be provided for a student who requires embossed materials.

Some tips for brailling follow:

- Computerized braille writers can be borrowed from the MRC (see Appendix 20, pages VI.60–64).
- Braille paper can be purchased from the *Distribution Centre Supplies Catalogue*, Edmonton Public Schools and the Canadian National Institute for the Blind (see Section XI, pages VI.88–91).
- A felt pad is placed underneath the brailler when it is being used, to reduce noise.
- Students should do their brailling in the classroom at the same time as the other students are writing.
- Tactile books with raised and textured objects, twin vision books which are print books with a transparent braille overlay, braille texts and general reading books are available from the MRC.

Where it is impractical to use a braille writer, a slate and stylus, which are portable braille writing tools, can be helpful for taking notes. They are inexpensive and easily carried in a pocket or bag. The slate and stylus can be borrowed from the MRC and placed in convenient places such as by the telephone for taking messages, or in the kitchen for making a shopping list or taking down a recipe.

For braille illustrations, see Appendices 6–10 (pages VI.41–45).

Large Print

The education consultant or itinerant teacher/strategist for students with visual impairments will assess the size of print that will allow the student with low vision to maintain a constant reading speed at a comfortable distance without undue fatigue. The education consultant or itinerant teacher/strategist will also assess the need for bold or raised lined paper, primary pencils, felt pens, magnifiers, bookstands and other specialized equipment. Some suggestions for using large print materials follow.

- Enlarge print and graphic materials on the photocopier or computer for students with low vision. Select materials which have clear type and pictures; adequate spacing between lines, words and letters; adequate margins; good quality paper with non-glossy finish; and maximum contrast between print and background.
- The student may not require large print for all materials in all classes. For example, a student may only need mathematics books, dictionaries and maps in large print.
- The nature of the eye condition may make it necessary to provide large print at certain times of the day when the student is fatigued.
- Students with low vision may be able to use the same print as other students in the primary grades. By Grade 4, the size of print and quantity of reading material may make it necessary for the student to begin using large print.
- Involve the student in deciding when it is best to use large print. A student may only wish to use large print books for leisure reading or to have a large print copy of the text book at home.
- Large print books may be borrowed from the MRC. The MRC collection includes commercially produced large print as well as MRC-produced titles. Large print books have print sizes from 18–21 points.

Magnification

Magnifying devices can be used to enhance the size of print on the page and on the blackboard, and they can be used to make the details in near and distant objects more visible. Students using magnifying devices may experience decreased reading speeds because of the reduced visual field. Young students may not have the necessary fine motor control to use magnifiers efficiently. Some older students, generally from Grade 5 onward, should be encouraged to become proficient in the use of magnifiers because they provide access to a variety of regular print materials. The individual needs of the student should be assessed by an education consultant or itinerant teacher/strategist for the visually impaired who will

consider the characteristics of magnifiers. The student may benefit from further assessment at the Low Vision Clinic (see page VI.90).

Various hand-held, pocket and stand magnifiers that can assist students are available for purchase. Consideration must be given to working distance, field of view, depth of focus, weight, style and appearance of the device.

Telescopic lenses on glasses and monoculars may enable the student to locate stationary and moving objects at a distance, such as street signs, bus numbers and print on the blackboard.

The closed circuit television is an electronic magnifying device which is described in the section on technology (see page VI.23). Initial instruction in the use of magnifying devices can be provided by the education consultant or itinerant teacher/strategist for students with visual impairments. Some suggestions for magnification follow.

- Begin instruction in the use of magnifying devices with highly motivating materials such as comic books, fortune cookies, stamps, menus, names of products in the grocery store or the action at a hockey game.
- Provide opportunity for repetition of tasks.
- The higher the magnification, the smaller the area that can be seen at one time and the more important it is to hold the magnifier at a given distance.

Audiocassettes

Audiocassettes provide the student with an alternate learning mode. They can be borrowed from the MRC, Canadian National Institute for the Blind and public libraries.

- Introduce the use of audiocassettes by providing the student in the elementary grades with short stories, and older students with novels and material for at least one subject of study.
- Teach the student active listening, which is listening intently to the audiocassette to pick out the main ideas and make short study notes. The student should assume an upright posture when listening.
- Provide a print or braille copy of new vocabulary on cassette so that the student will learn the spelling of new terms and names.
- With experience, the student will be able to take advantage of the compressed speech feature on the recorder and listen to the tape at an increased speed.
- Books recorded on four-track tapes can only be played on four-track cassette recorders. These can be borrowed from the MRC.

The student will need training in listening skills. A program such as *Listen and Think*, available from the MRC, or other listening programs which may be available in the school are designed to help students learn basic listening skills in a sequential way. *Listen and Think* is for use in the elementary grades (see Section IX, page VI.76).

Technology

The use of computers is particularly important for students with visual impairments, as their ability to use written communication is often diminished or inefficient.

The education team should select computer hardware and software specific to the student's individual needs, considering the student's short and long-term educational goals and objectives. Appropriate selection of devices and technology, and subsequent training, is crucial for ensuring proper use of such devices. Remember that software and hardware must be compatible, and that systems used at home and at school need to be coordinated for efficient transfer of homework assignments. Suitable commercial products are noted in parentheses within the following categories of equipment. Ordering information is found in Section X, pages VI.86–87.

Information on a variety of visual aids and magnification devices is included in this section.

Screen Reader/Speech Synthesizer

Screen readers provide auditory feedback when using the keyboard as well as auditory access to information displayed on the monitor. These systems consist of a software program and a speech synthesizer. The software program sends information from the computer to the synthesizer, where phonemes are combined into words and the words are spoken. Most systems allow choices in volume, voice quality and speed of output. Students with limited or no reading vision will find these devices useful, especially when connected to braille and regular printers for output (Intellitalk, JAWS, Outspoken, IBM ScreenReader/DOS).

Screen Enlarger

Screen enlarger software programs display information on a computer screen in a variety of magnification levels, up to 16 times the standard. The entire screen, a portion of the screen or just one line may be enlarged. Students with low vision may benefit from these programs (IBM ZoomText, MAGic, VisAbility, Mac inLARGE, Large Print DOS).

Another type of screen enlarger is a computer accessory that fits over a monitor screen (Compu-Lenz). A third alternative is a processor which interfaces with an Apple IIe computer to provide screen enlargement.

Voice Access

Voice access systems allow the user to interact with the computer screen by using voice commands instead of the keyboard. They are particularly useful for students who have difficulties with fine motor control as well as visual impairments. These systems include special software and sound cards to allow for voice output of information on the screen. As with screen readers, they can be connected to braille and regular printers for output (DragonDictate).

CD-ROM

CD-ROM is a software storage device capable of holding large amounts of information. Information displayed on the computer screen from the CD can be accessed through the use of screen enlargement, screen readers and electronic braille displays.

Electronic Reading System

Electronic reading systems scan printed information. Through the speech synthesizer, the words of the scanned text are spoken aloud. Each system is composed of:

- a scanner
- optical character recognition (OCR) software
- a speech synthesizer
- a keyboard.

The user controls the:

- speech rate
- volume
- voice quality
- amount of text read at one time (letter for letter, single word, sentence, etc.).

When used in conjunction with computer systems equipped with braille printers or font-sized word processing programs, these systems can be used in educational settings to convert standard print materials to braille or large print format. These systems are often found in public libraries throughout Alberta (Reading Edge).

Brailler

The brailler is a piece of equipment used for braille writing. The brailler's six keys correspond to the six dots of the braille cell. Braillers are portable and can be carried from class to class, although they are heavy for young students. Special heavyweight braille paper can be purchased from the Canadian National Institute for the Blind and Edmonton Public Schools Distribution Centre.

Portable Electronic Braille Writer

These small computerized devices have standard six-key braille keyboards that allow the user to write, read, edit and sort approximately 200 pages of braille.

They can be connected to personal computers as well as regular and braille printers. Students with limited or no vision will find them useful. Electronic braille writers:

- have speakers for voice output
- have an adjustable rate of speech
- are portable
- can be run on a rechargeable battery
- can be used to silently take notes in the classroom
- have either a small braille display and/or speech output (Braille 'n Speak, Braille Mate, Braille Lite, Type 'n Speak).

Braille Computer System

Braille computer systems allow a student who uses braille to access word processing and complete other tasks on a personal computer. Generally, they consist of specialized software, a braille display and in some cases, a laptop computer. As with other types of computer software, braille computer systems are designed for specific operating systems and computers; e.g., Apple, Mac, DOS, etc.

Print-to-Braille Software

Print-to-braille software allows a computer user who is not highly proficient in braille transcription to produce braille documents from print or electronic data (CD-ROMs, Internet, Scanner). When combined with a braille printer, a variety of teacher-designed materials can be prepared for a student. This software is generally used by school personnel but may be also used by students (Duxbury, MegaDots).

Calculator

Calculators with voice output allow students to do a wide variety of mathematical calculations. Most units have earphones and some keypads have tactile indicators for significant keys. Enlarged print displays and scientific calculators for advanced work are available (Sharp, Panasonic, Texas Instrument).

Closed Circuit Television

Closed circuit television systems electronically enlarge printed, hand-written and graphic materials onto a monitor screen. The components include a camera with a zoom lens and light source, a monitor, and a flat movable counter. Portable and colour units are also available. Students with low vision may find these systems useful. The student can control the size, focus, brightness and contrast, and polarity of the display (black on white to white on black). For further information and illustrations, see Appendices 11–12, pages VI.46–47.

Cassette Recorder

Cassette recorders can be used as writing tools as well as reading tools. Students with no vision, as well as those with limited vision, can benefit from the use of cassette recorders. Useful features of specialized cassette recorders include:

- play and record at variable speeds
- play and record on two tracks per cassette side
- tone indexing (insertion of a beep to mark a section of text)
- tactile markings on control keys
- operate on regular current and rechargeable batteries
- built in microphone and ear-phone attachment.

Descriptive Video Service (DVS)

DVS carefully describes the visual elements of a movie: the action, characters, locations, costumes and sets without interfering with the movie's dialogue or sound effects. Students with any degree of visual impairment will enjoy these tapes.

Low Tech Adaptations

Keyboard access can be maximized through the use of enlarged keyboard labels and tactile indicators.

Non-optical adaptations for improving access to the screen display include:

- adjustable lighting
- polarized screen filters
- monitor hoods to reduce glare
- adjustable document holders
- adjustable computer stand for close viewing (PowerBraille).

Section V
Orientation and Mobility

Orientation and mobility instruction prepares students with visual impairments to travel independently. Orientation skills help students to be aware of their bodies in space and the surrounding environment. Mobility skills are specific techniques used to enable students to move easily from one place to another.

When planning and implementing all orientation and mobility programs, consult with the specialists available in your jurisdiction.

The goal of an orientation and mobility program is to ensure that students can move safely and efficiently within the educational environment. The educational environment begins with the classroom, but extends to the entire school, including outdoor settings with sidewalks, playgrounds and bus/car drop-off points. Strategies for including students in field trips, work experience settings and school-based community outings are also important.

As students grow, mature and enter a wider variety of environments, the program will adjust to meet these changing needs. Familiarizing students to a new physical setting, such as entering a new school or classroom, is crucial. This is done by establishing a definite landmark as a home base and exploring the area in a systematic way.

An individual program is determined by considering the following factors:

- diagnosis and degree of visual impairment
- prognosis of visual impairment
- functional vision
- presence of other disabilities
- age
- cognitive functioning
- general health
- school and community environment
- family, school and community resources.

Orientation skills can be incorporated within many regular classroom activities, particularly in pre-school and early elementary classes. Games, songs and activities which teach or reinforce concepts such as awareness and naming of body parts, positional concepts, sensory awareness and basic movement patterns, address these essential components of the program (see Appendix 13, pages VI.48–49).

Specific learning experiences planned for individual students can be taught and reinforced incidentally, throughout the school day. These experiences include:

- environmental awareness — includes awareness of air temperature, air currents, scents, sounds, floor and wall coverings, furniture arrangement, and objects in the hallway.
- identifying landmarks — any permanent sensory information that assists individuals during independent travel. Learning that the first door on the left is the library entrance or that the flooring

changes from linoleum to carpet at the reading centre, helps students locate themselves within the school environment. Landmarks should have significance for the student.

- structural components of rooms and buildings — use models such as doll houses, Lego models and play house centres to help students understand concepts that they may not be able to experience visually. These may include: corner, doorway, window, heating elements, basement, hallway, etc.
- directionality — left/right, followed by cardinal directions (north, south, east, west).

Mobility skills must be chosen to meet each student's specific needs and situation. Some common mobility skills follow:

- Sighted guide — one option for getting from place to place is to utilize the assistance of a sighted guide. Teachers, staff, family members and peers can act as sighted guides and should be taught guide techniques. The student with a visual impairment grasps the guide's arm just above the elbow and maintains a position one-half step behind the guide. Depending on the height of the student and the guide, the student may grasp the guide's wrist or extended finger (see Appendix 14, pages VI.50–51).
- Trailing — is a method of travel that can be used to get to a desired location while maintaining contact with a surface. This means of travel is taught to facilitate orientation by memorizing landmarks located along a frequently travelled route. The trailing technique is demonstrated by extending one's arm at a 45º angle in front and to the side of the body, with the back of the hand following the trailing surface (see Appendix 15, page VI.52).
- Upper protective technique — protects the student's head and upper body from contact with obstacles. Either arm can be used in combination with lower protective technique or trailing. The arm is held across the upper body with the elbow bent and the palm facing forward (see Appendix 15, page VI.53).
- Lower protective technique — protects the middle area of the body from contact with obstacles. Either arm can be used in combination with the upper protective technique. The arm is held across the middle of the body with the elbow straight and the palm facing inward (see Appendix 15, page VI.53).

Mobility Devices

There are many factors to consider when selecting a mobility device for a student. These include:

- ability to hold a device
- balance
- motor skills
- attention span
- visual functioning
- age
- motivation and attitude.

The long white cane is a device that is used successfully by students with visual impairments, including those with additional disabilities (see Appendix 16, page VI.54). Once the need for the long white cane is determined, orientation and mobility instruction must commence to develop this highly essential and specialized skill.

Canes vary in size, weight and manufacturing materials. Adaptations can be made to accommodate the individual needs of the student. If the long white cane will be the eventual mobility device of choice, a positive attitude for its use must be established early.

The education consultant or itinerant teacher/strategist for students with visual impairments, or the orientation and mobility specialist informs the family and student of resources which can assist the student in learning appropriate orientation and mobility skills for travel beyond the educational environment.

Section VI
Students with Visual Impairments and Other Disabilities

Visual impairments may exist in combination with other disabilities. There are some students with visual impairments who also have developmental disabilities, are deaf or hard of hearing, or have physical disabilities. When a student has more than one disability, it is important to assess each disability separately and to assess how the combined disabilities impact the student's total performance. The student with a visual impairment has difficulty gaining information about the world. This is made more difficult if the student cannot conceptualize easily because of a developmental disability, cannot hear meaningful sounds or cannot physically move to explore.

Strategies

A coordinated interdisciplinary team approach to assessment and program planning is necessary. The consultants required depend on the individual student's disabilities, and may include physiotherapists; occupational and speech therapists; psychologists; behaviour specialists; social workers; education consultants or itinerant teacher/strategists for students with visual impairments; education consultants for students who are deaf or hard of hearing and audiologists. It is vital that the student's needs be thoroughly assessed so that an appropriate educational program can be developed. Interdisciplinary teams of consultants are available to assist all teachers who work with Alberta students with sensory multihandicaps through Alberta Education, at a subsidized rate. (See Section XI, pages VI.88–91.)

Instructional Practices for Students with Visual Impairments and Developmental Disabilities

The instructional process must include opportunities for the student to explore new objects and places, and be exposed to a variety of experiences. Students must experience a variety of textures, shapes, weights, temperatures, sounds, smells and tastes to build meaningful relationships and concepts about the environment.

- Provide opportunities to practise and reinforce skills in natural settings throughout the day. Repetition is necessary for the student to master new skills.

- If the student has residual hearing, use stationary sound sources to orient the student to important locations and landmarks, such as hanging wind chimes in the door way, or placing a metronome near the carpet for circle time.
- Activities should be task analyzed and broken down into steps so that each step can be taught sequentially. Refer to *Programming for Students with Special Needs,* Book 2, task analysis, pages ESS.18–42.
- Provide opportunities for the student to be with students who do not have disabilities for purposes of modelling their behaviour.
- Create opportunities for the student to develop meaningful relationships with adults and peers who may or may not have disabilities.
- The long white cane and a variety of adaptive mobility devices are used by these students. These devices allow a student to move more freely and confidently through open spaces.

Vision Stimulation

A student's residual vision may need to be stimulated so that the student will use it more efficiently. This should be done incidentally throughout the day in natural settings and activities. The student's need for vision stimulation must be assessed by the education consultant or itinerant teacher/strategist for students with visual impairments before vision stimulation is included in the student's program.

- Consult the physiotherapist or occupational therapist regarding the optimal physical position for viewing.
- Allow enough time for the student to respond to visual stimuli, as there may be a latent response.
- Use materials that are brightly coloured, in high contrast to the background and provide simple outlines that are easily interpreted.
- Pair visual information with other sensory cues, particularly auditory cues.
- Create opportunities that require the student to look, such as placing a cup in a variety of positions on the table so that the student must visually search for it.
- Be aware of the student's visual preferences for colour, field of vision, and shape and size of objects.
- Avoid over stimulating the student through the introduction of too much clutter.

Additional information and strategies can be found in *Programming for Students with Special Needs,* Book 2, *Essential and Supportive Skills for Students with Developmental Disabilities.* Particularly useful information can be found in instructional strategies for teaching students with developmental disabilities, pages ESS.15–42.

Instructional Practices for Students with Visual Impairments who are Deaf or Hard of Hearing

It is essential to seek assistance from an education consultant or itinerant teacher/strategist for students with visual impairments and an education consultant for the deaf and hard of hearing to assess the student's needs and to determine the most appropriate communication system for the student.

Many of the suggestions given throughout this document will be useful when working with students with visual impairments who are deaf or hard of hearing.

- The following materials and adaptations are appropriate for students who have some vision: large print, magnification devices, large screen televisions that enlarge the size of the closed captions, large print displays on TDD telephones and highly contrasting colours.
- If the student is using sign language as the primary means of communication, seat the student as close to the teacher as possible so that the student does not miss any information.
- If other students in the class are using sign language but are too far away from the student for the signs to be interpreted, the relevant information should be repeated by the teacher or a buddy who is sitting next to the student.
- The inclusion of the student in all classroom activities is essential to prevent the student from becoming isolated.

See also *Programming for Students with Special Needs*, Book 4, *Teaching Students who are Deaf or Hard of Hearing*.

Instructional Practices for Students with Visual Impairments who have Physical Disabilities

- The student must be taken to many, varied places and allowed to explore and experience objects and textures in the environment.
- The student will need to visit the same places and explore the same objects repeatedly to develop full concepts.
- Materials of varied textures, shapes, sounds, smells and tastes must be brought to the student because the student cannot seek them out to build meaningful relationships and concepts about the environment.

Section VII
Appendices

File Review Form

Identifying Information

Student Name: _____

Date of Birth: _____ Grade: _____

Address: _____ Telephone Number: _____

Parents or Guardians: _____

Medical Reports

Medical Diagnosis (including information about physical disabilities, neurological disorders and allergies):

_____

_____

_____

_____

Visual Impairment: _____

Physician's Name: _____

Date of Report: _____

Diagnosis: _____

Degree of Visual Impairment: _____

Age of Onset: _____

Functional Vision Assessment

Results: _____

_____

_____

Programming Recommendations: _____

_____

_____

Educational Report

Formal Test Results: _____

Teacher Progress Reports (report cards): _____

Academic Level of Student: _____

Vocational Level of Student: _____

Social Skills: _____

Work Skills: _____

Individualized Program Plan (IPP)

Areas of Strength: _____

_____

_____

_____

_____

Areas of Need: _____

_____

_____

_____

_____

Ongoing Goals: _____

_____

_____

_____

_____

Education Strategies: _____

_____

_____

_____

_____

Resource Materials: _____

_____

_____

_____

_____

Service Delivery Team

Parents: _____

Teacher: _____

Teacher Assistant/Paraprofessional: _____

Education Consultant for Students
with Visual Impairments: _____

Itinerant Teacher/Strategist: _____

Others: _____

_____

Equipment:

- ☐ cane
- ☐ CCTV
- ☐ brailler
- ☐ computer
- ☐ braille printer
- ☐ specialized software
- ☐ slanted desktop
- ☐ desk light
- ☐ magnification devices
- ☐ kits
- ☐ other_____

Interview with Parents

General Information
To help create a complete picture of your child, could you provide recent medical reports as well as the following information.

General health and medical concerns: _____

_____

_____

Information regarding your child's visual impairment (including date of most recent eye examination):

_____

_____

_____

The names of professionals and agencies providing service to your child:

_____

_____

Educational and Social Needs
Tell me about your child's visual impairment and what you think it might mean in my classroom.

_____

_____

_____

How independent is your child (at home, at school, in the community)? Are there any particular difficulties I need to be aware of? How much assistance do you feel your child needs?

_____

_____

_____

What reports and other information about your child do you feel are important for me to have? For example; visual acuity, assessment of visual field, functional vision, recommendations.

_____

_____

_____

There will likely be questions from other students about your child's visual impairment. Have you any suggestions about what might be said and how it should be presented in class?

_____

_____

_____

Are there any other people working with your child that I should know about?

_____

_____

What educational and social goals do you have for your child? _____

_____

_____

Are there any other questions you would like to ask me? For example; what are my classroom expectations, assignments, materials, activities, assessments of progress, projects, portfolios or tests?

_____

_____

_____

What specialized equipment does your child use at home and at school (Braille 'n Speak, braille printer, CCTV)?

_____

_____

Summary of Information from First Meeting with Parents

Student's Name:	Date:
Parents' Names:	Telephone Number: Business Number:

Important People (family, friends, others on educational team):

Description of Vision Loss:

Student's Interests, Hobbies, Strengths:

Questions and Concerns:

Initial Short-term Goals:

Long-term Goals:

Other Information/Suggestions:

Information from an Education Consultant or Itinerant Teacher/Strategist for Students with Visual Impairments

To help provide appropriate programming, please provide the following information:

Degree and Nature of Visual Impairment

An explanation of the student's visual impairment: _____

_____

_____

An explanation of the student's use of residual vision in the classroom: _____

_____

_____

_____

Educational and Social Needs

What equipment should be used? How is it obtained by the school? _____

_____

_____

_____

What adaptations to materials should be made? _____

_____

_____

What are some strategies for instruction particular to the student? For example; verbal instructions.

_____

_____

_____

_____

_____

What are the strategies the student has used in moving throughout the school environment?

_____

_____

_____

What resource materials are available to support programming? Where can this material be obtained?

_____

_____

_____

What resource personnel provide support to the staff and the student? For example; education consultants for students with visual impairments, itinerant teacher/strategist, braillist, teacher assistant.

_____

_____

_____

What are some strategies for including the student in group activities?

_____

_____

_____

What are some strategies for helping all students interact comfortably in informal and formal situations?

_____

_____

_____

Questions to Ask the Student

In order to help you feel comfortable and experience success in the class, please answer the following questions.

Visual Impairment
Do you use any specialized equipment?

_____

_____

What is your understanding of visual impairment in general, and your own visual impairment in particular?

_____

_____

Educational and Social Needs
What type of assistance have you had in the past? For example; education consultant, itinerant teacher/strategist, a buddy, a note-taker, a teacher assistant?

_____

_____

Where would you like to sit in the class?

_____

Which subject areas do you like and which do you dislike?

LIKE: _____

DISLIKE: _____

What are your leisure interests and activities?

_____

_____

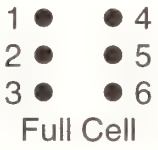
_____

Are you aware of the kinds of activities available during lunch and recess, such as, clubs, sports, games? Do you know how to get involved in these activities?

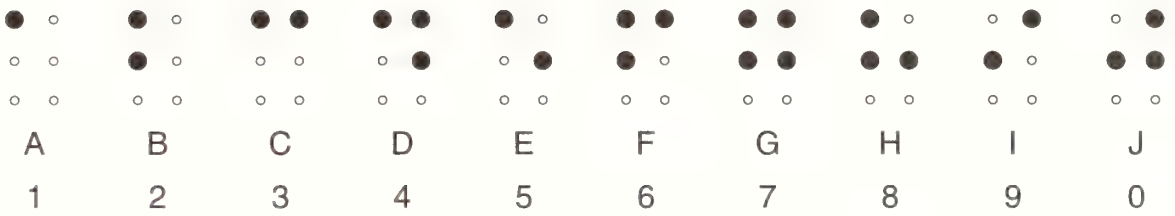
How will you let me know when you need help?

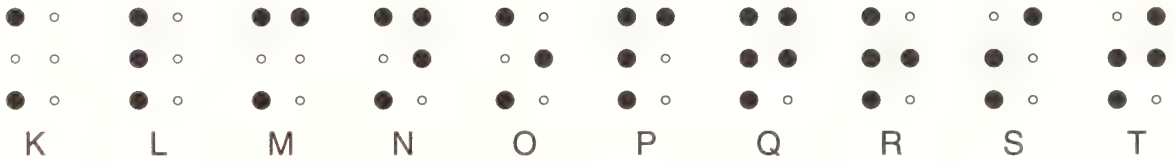
Are there any questions you would like to ask or anything you think I should know to help you learn more effectively?

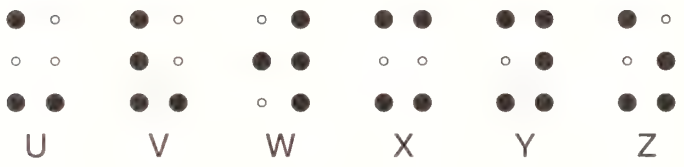
Braille Alphabet and Numbers[1]



Full Cell

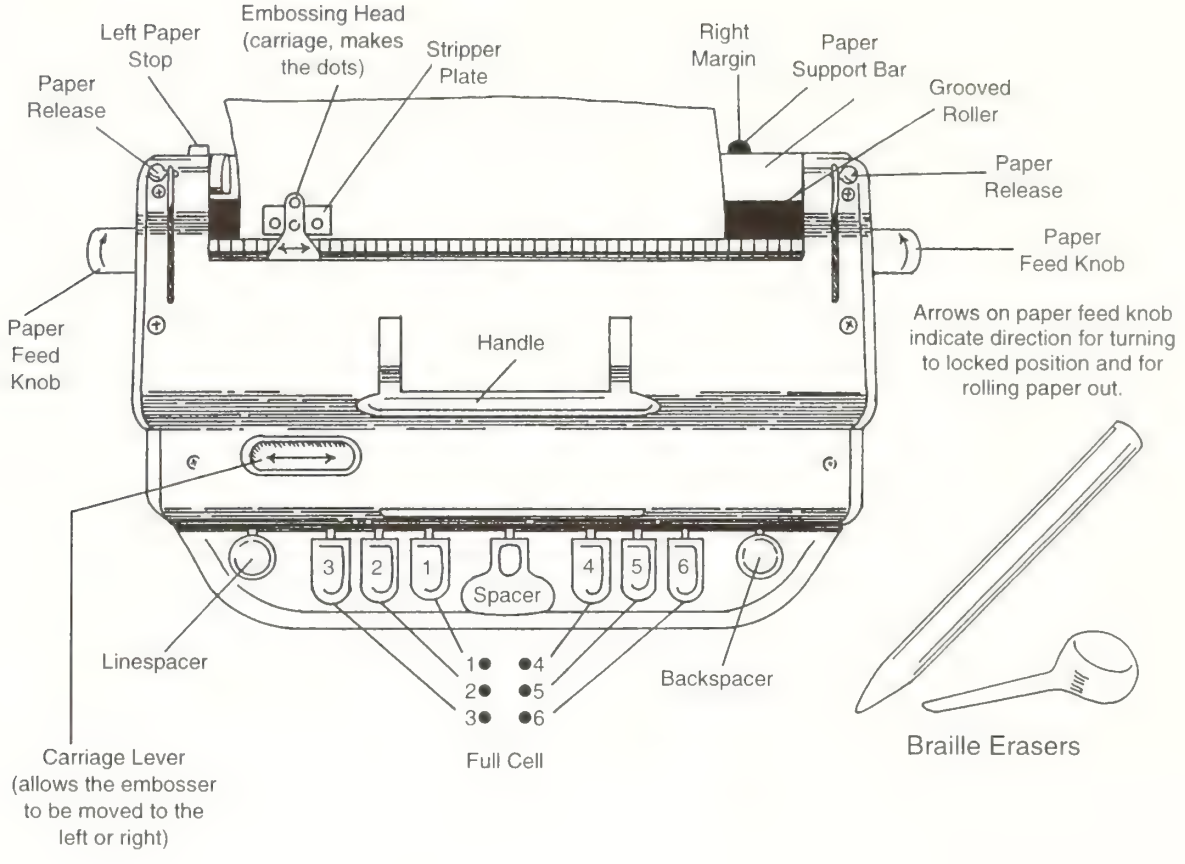






[1] From *Resources for family centered intervention for infants, toddlers, and preschoolers who are visually impaired: VIISA Project* (p. 1125), edited by Elizabeth Morgan, 1995, Logan, UT: Hope Inc. Reprinted with permission.

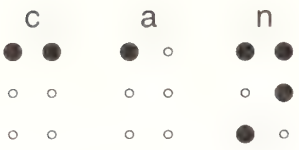
Braille and the Perkins Braillewriter[2]



[2] From *Resources for family centered intervention for infants, toddlers, and preschoolers who are visually impaired: VIISA Project* (p. 1126), edited by Elizabeth Morgan, 1995, Logan, UT: Hope Inc. Reprinted with permission.

Grade 1 and Grade 2 Braille[3]

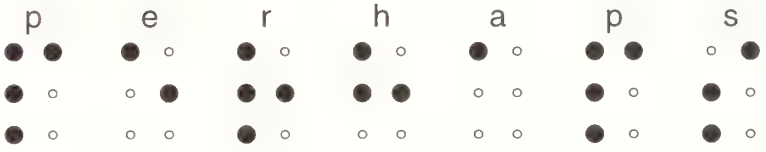
Grade 1:



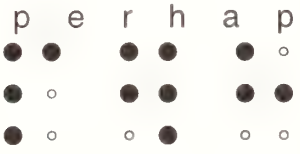
Grade 2:

In Grade 2 braille <u>can</u> is simply brailled "c" as a whole word sign for <u>can</u>.

Grade 1:



Grade 2:



<u>p</u> is brailled
<u>er</u> sign is brailled
<u>h</u> is brailled

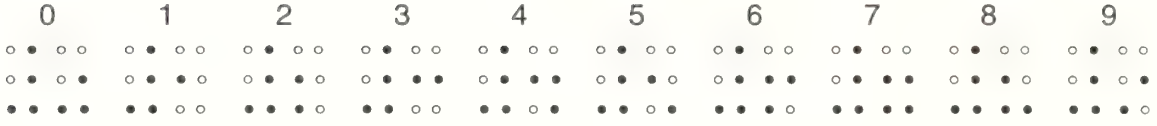
} This combined stands for the word "perhaps"

Grade 1 Braille — also known as alphabet braille.
Grade 2 Braille — also known as contracted braille

[3] From *Resources for family centered intervention for infants, toddlers, and preschoolers who are visually impaired: VIISA Project* (p. 1159), edited by Elizabeth Morgan, 1995, Logan, UT: Hope Inc. Reprinted with permission.

Nemeth Braille Code

1 • • 4
2 • • 5
3 • • 6
Full Cell



Signs of Operation:

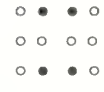
Plus:

Multiply:

Minus:

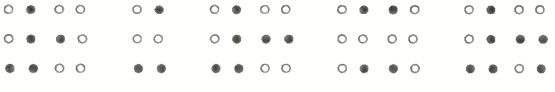
Divide:

Equal:

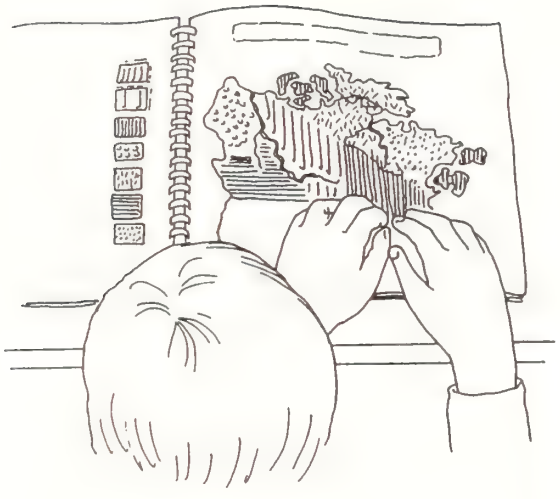


Example:

1 + 3 = 4



Braille Reading Positions[4]

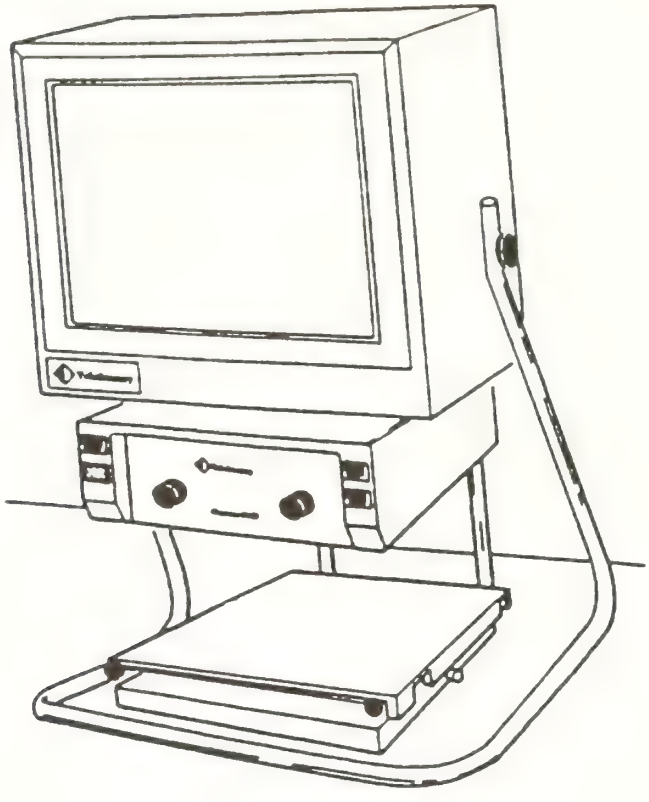


Book on table surface. Student is reading braille labels on a thermoformed book.

Lap pillow under book

[4] From *Resources for family centered intervention for infants, toddlers, and preschoolers who are visually impaired: VIISA Project* (p. 1160), edited by Elizabeth Morgan, 1995, Logan, UT: Hope Inc. Reprinted with permission.

Closed Circuit TV System[5]



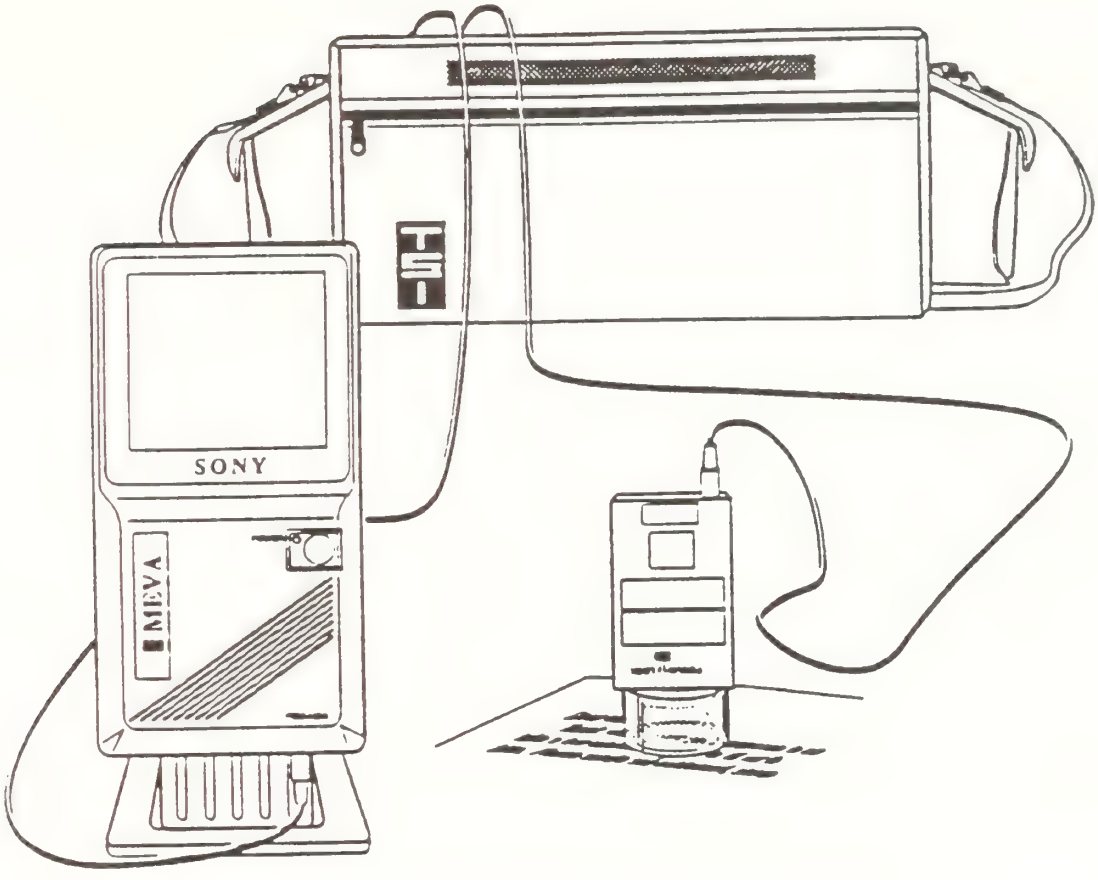
Purpose: To magnify print and other images onto a 20" colour television screen. The polarity control switch allows the user to display dark letters on a light background or light letters on a dark background.

Standard Circulation: 20" monitor with stand, master camera, dust cover, instruction manual, video cable and power cable.

Optional Accessories: None.

[5] Wording taken from *Materials Resource Centre for the Visually Impaired equipment catalogue*, Alberta Education, 1995, Edmonton, AB: Materials Resource Centre for the Visually Impaired. Reprinted with permission. Diagram courtesy of Telesensory Systems Ltd., Mountain View, CA. Reprinted with permission.

MEVA (Miniature Electronic Visual Aid)[6]



Purpose: This is a portable unit which magnifies print and other images.

Standard Circulation: Instruction manual, battery, AC adapter, softpack carrying case, monitor, charger, camera, four lenses. One unit has the four lenses built in.

Optional Accessories: None.

---

[6] Wording taken from *Materials Resource Centre for the Visually Impaired equipment catalogue*, Alberta Education, 1995, Edmonton, AB: Materials Resource Centre for the Visually Impaired. Reprinted with permission. Diagram courtesy of Telesensory Systems Ltd., Mountain View, CA. Reprinted with permission.

Orientation and Mobility[7]

Overview of O & M Pre-school Concept Development Skills

Size, shape and function of objects in the world			
(size)	• big/little • narrow/wide	• long/short • thin/thick	• tall/short
(shape)	• square, circle, triangle, etc.		
(function)	• by daily use (for example, comb for grooming)		

Texture and contour concepts of objects			
(texture)	• rough/smooth • slippery	• hard/soft • bumpy	• sharp/dull • jagged
(contour)	• flat • crooked	• incline/decline • curved	• straight

Time, distance, amount and weight concepts		
(time)	• now/later • day/night • minute, second, hour	• morning, afternoon, evening • today, tomorrow, yesterday
(distance)	• closer/farther • to the driveway • one city block	• across the room, down the hall • across the yard, street • millimetres, centimetres, metres
(amount)	• all/none • more	• empty/full • half/whole
(weight)	• heavy/light	

[7] From *Resources for family centered intervention for infants, toddlers, and preschoolers who are visually impaired: VIISA Project* (pp. 828–829), edited by Elizabeth Morgan, 1995, Logan, UT: Hope Inc. Reprinted with permission.

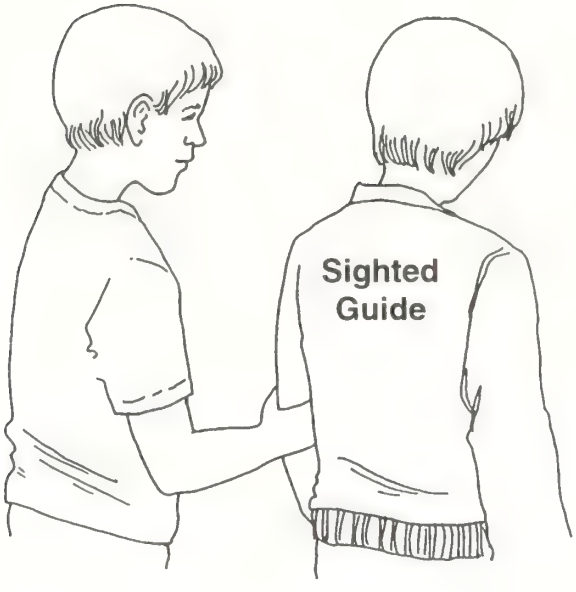
Identification and movement of complex body parts and body planes			
(parts)	• tongue	• chin	• jaw
	• neck	• chest	• shoulder
	• forearm	• wrist	• fingers
	• thumbs	• waist	• thigh
	• hips	• ankle	• heel
(planes)	• top of head	• bottom of foot	• sides of body
	• front of body	• back of body	
(movement)	• bends body backwards, forward, sideways		
	• rises up on toes	• moves forward/backward	

Position of self in relation to objects and to people and objects		
• on/off	• in between	• in front of/behind
• over/under	• next to	• higher/lower
• on top of	• to the side of	• on the bottom of
• high/low	• facing toward	• left/right

Specific environmental concepts (indoors and outdoors)	
(indoor concepts)	• walls, ceilings, floors
	• carpet, linoleum, rugs, curtains
(outdoor concepts)	• sidewalks, streets, driveways, etc.
	• corners, curbs
	• railings, bridges, ramps
	• stairs, escalators, elevators
	• asphalt, dirt, grass, etc.
(means of transport)	• cars, buses, air planes, boats
	• riding toys, bikes, sleds, skis, roller blades

Sighted Guide Techniques[8]

A. For Older Child



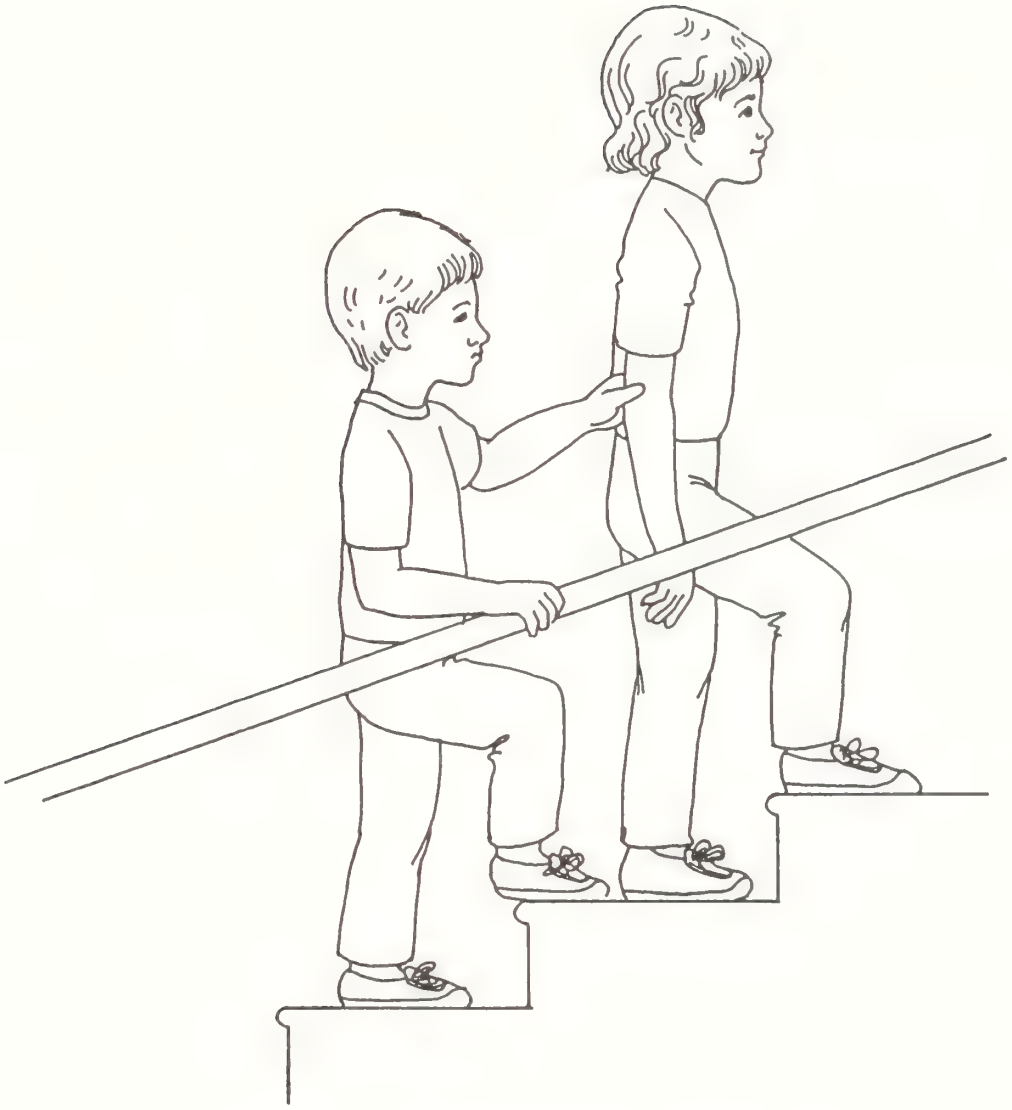
The child who is blind should lightly grasp the guide just above the elbow as this position gives the best movement clues. The thumb is on the outside as in holding a glass. The child's arm needs to be held at a right angle.

B. For Younger Child

In the sighted guide technique, the child may hold onto the guide's wrist and follow the guide's body movement. The child is guided, not pushed or pulled when walking along.

[8] From *Resources for family centered intervention for infants, toddlers, and preschoolers who are visually impaired: VIISA Project* (p. 810), edited by Elizabeth Morgan, 1995, Logan, UT: Hope Inc. Reprinted with permission.

Sighted Guide on Stairs[9]



The guide stands toward the middle of the stairs and the child who is blind will be one step behind aligned with the guide's right shoulder and holding onto railing on his right side. The opposite would apply if the railing is on the left side.

[9] From *Resources for family centered intervention for infants, toddlers, and preschoolers who are visually impaired: VIISA Project* (p. 811), edited by Elizabeth Morgan, 1995, Logan, UT: Hope Inc. Reprinted with permission.

Indoor Trailing Techniques[10]

A. Trailing

B. Trailing combined with cross-body or upper cross-arm techniques

[10] From *Resources for family centered intervention for infants, toddlers, and preschoolers who are visually impaired: VIISA Project* (p. 804), edited by Elizabeth Morgan, 1995, Logan, UT: Hope Inc. Reprinted with permission.

Protective Techniques[11]

Upper Hand & Forearm (cross-body technique)

A.

This technique is used for protection to the upper body. The arm is at shoulder level with the elbow bent. The elbow protects one shoulder while the fingers protect the other.

Lower Hand & Forearm (lower cross-body or dropped hand)

B.

Here the cross-body or upper hand and forearm technique is combined with the lower cross body or dropped hand technique for further protection.

Adapted "Bumper Cars, High"

C.

One hand on top of the other with palms facing away from child, held straight in front of body at shoulder level.

Adapted "Bumper Cars, Low"

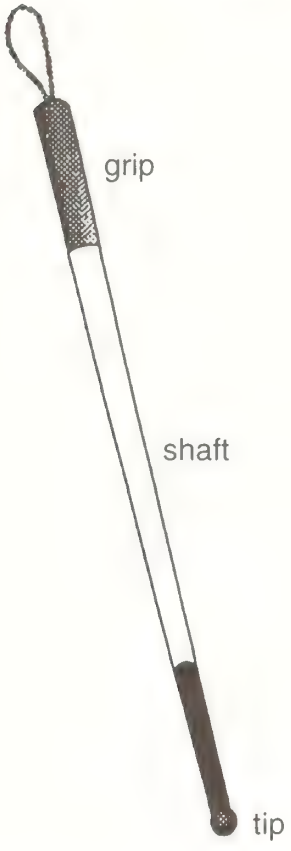
D.

One hand on top of the other with palms facing away from child, held straight in front of body at waist level.

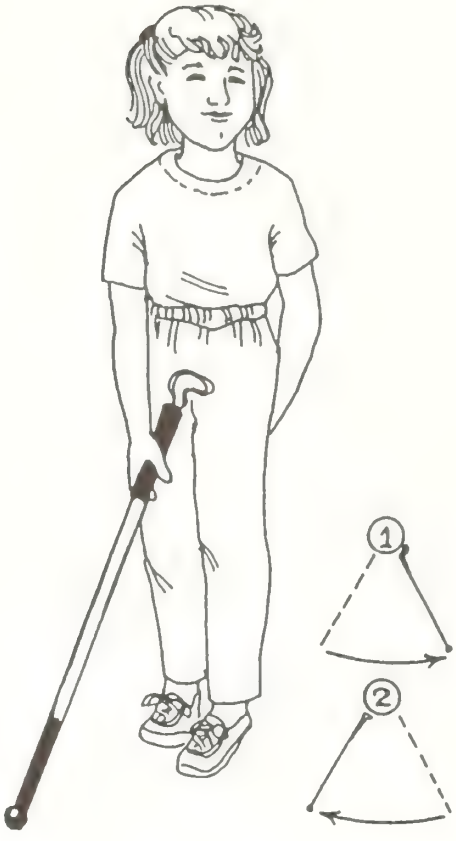
[11] From *Resources for family centered intervention for infants, toddlers, and preschoolers who are visually impaired: VIISA Project* (p. 796), edited by Elizabeth Morgan, 1995, Logan, UT: Hope Inc. Reprinted with permission.

Using the Long White Cane[12]

A. Parts



B. Techniques



Constant Contact

Cane tip is kept in contact with the floor as she walks. Thus, with the next step it would be slid to her left side.

[12] From *Resources for family centered intervention for infants, toddlers, and preschoolers who are visually impaired: VIISA Project* (p. 819), edited by Elizabeth Morgan, 1995, Logan, UT: Hope Inc. Reprinted with permission.

Safely Locating a Dropped Object[13]

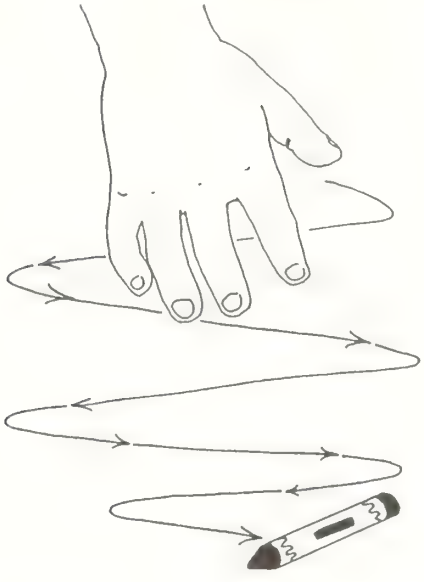
Never bend over when picking up a dropped object. Here the child's head will bump the edge of the desk as she bends over.

This is the correct manner for picking up an object. The girl's hand will provide protection as she squats straight downward to reach for the object.

[13] From *Resources for family centered intervention for infants, toddlers, and preschoolers who are visually impaired: VIISA Project* (p. 797), edited by Elizabeth Morgan, 1995, Logan, UT: Hope Inc. Reprinted with permission.

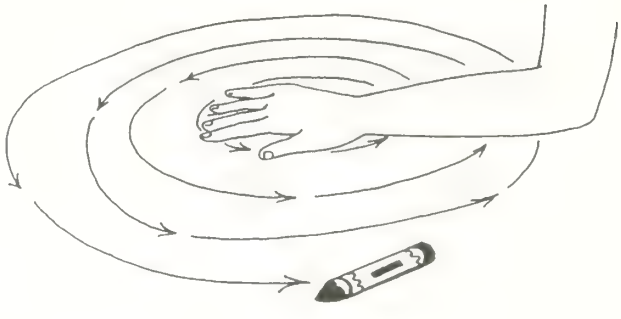
Search Techniques for Dropped Objects[14]

For Younger Child



This technique employs the use of a fanlike (side-to-side) pattern of motion.

For Older Child



Hand and elbow flat against the surface, especially if large area, such as floor. Use the whole hand, starting at the center, make a series of increasingly larger circles.

[14] From *Resources for family centered intervention for infants, toddlers, and preschoolers who are visually impaired: VIISA Project* (p. 798), edited by Elizabeth Morgan, 1995, Logan, UT: Hope Inc. Reprinted with permission.

* Observation Checklist[15]

	Yes	No
Behaviour		
Rubs eyes excessively.	❑	❑
Shuts or covers one eye, tilts head or thrusts head forward.	❑	❑
Has difficulty with work that requires close use of the eyes (such as putting puzzle parts together or matching identical shapes).	❑	❑
Blinks more than usual or is irritable when doing close work.	❑	❑
Holds objects close to eyes.	❑	❑
Is unable to see distant things clearly.	❑	❑
Squints eyelids together or frowns.	❑	❑
Appearance		
Has crossed eyes.	❑	❑
Eyelids are red-rimmed, crusty or swollen.	❑	❑
Eyes are inflamed or watery.	❑	❑
Has recurring styes (small inflamed swellings on the rim of the eyelid).	❑	❑
Complaints		
Eyes itch, burn or feel scratchy.	❑	❑
Cannot see well.	❑	❑
Has dizziness, headaches or nausea following close eye work.	❑	❑
Has blurred or double vision.	❑	❑

* Adapted from "Signs of Possible Eye Trouble in Children." Available from the National Society for the Prevention of Blindness, 79 Madison Avenue, New York, NY, 10016.

[15] From *Resources for family centered intervention for infants, toddlers, and preschoolers who are visually impaired: VIISA Project* (p. 164), edited by Elizabeth Morgan, 1995, Logan, UT: Hope Inc. Reprinted with permission.

Steps to Take[16]

If a student demonstrates any of the behaviours listed on the observation checklist, there is reason to suspect that the student may have a vision problem. The following steps should be taken.

1. Check the student's file for any reports on the results of vision screening tests or ophthalmological and optometric assessments.

2. Alert the principal and the special education coordinator in the school of your concern about the student's vision.

3. Contact the parents to determine if the student has had a previous vision assessment.

4. If the parents have no information, request their permission for the community health nurse to carry out vision screening. If the community health nurse confirms that the student is having trouble seeing, advise the parents to contact either an optometrist or their family doctor to request a referral to an ophthalmologist for further assessment. This procedure may be followed even if the community health nurse does not identify any problem, but you still have concerns about the student's vision.

[16] From Edmonton Public Schools. Reprinted with permission.

Teaching Peer Names and Voices to a Student with a Visual Impairment[17]

A Classroom Approach: Some Ideas to Try Out

Always say your name when approaching the student. For example; "Hi, _____, it's _____. Model this approach continually for younger students in the classroom. Even if the student with a visual impairment knows your voice, continue to do this. Younger students will need lots of practice using this approach and will need teacher prompting so it becomes automatic and used throughout the school day and year.

GAMES

Guess My Name

Make a few tapes of students' voices, starting with about five. Each student records the same thing. For example; "My favourite food is . . ." The students guess who the name is. (Keep a list of the sequence of voices recorded.)

Variation

All students put their heads and hands on their desks and close their eyes. The teacher touches someone's shoulder. The student touched says, "Guess my name." The other students put up their hands (not looking) to guess. If a student correctly guesses the name, that student can choose the next person to touch.

Practice Round — Voice/Name Identification

Have all students put their heads on their desks and close their eyes. Tell them, "We are listening to our voices." Start by telling them a food you like. Then say, "I'm going to ask each of you a food you like." For example; "Joey, what food do you like?" Always say the student's name first. This gives them practice in pairing names with voices.

VARIATION: Ask what their favourite toy, animal, movie, etc. is.

Reminder to Students

With the students' heads down and eyes closed, say, "What food do you like?" (using no name). Do you know who I asked? No, because I didn't say their name. Remind them to say their names to the student with a visual impairment. Encourage the student with a visual impairment to also address peers by their names.

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[17] Adapted from Regional Education, Assessment and Consultation (R.E.A.C.H.), 1995, Calgary, AB. Reprinted with permission.

Materials Resource Centre for the Visually Impaired (MRC)

12360 – 142 St. N.W., Edmonton, AB T5L 4X9
Telephone: (403) 427–4681 Fax: (403) 427–6683
E-Mail: MaterialsResourceCentre@edc.gov.ab.ca

The MRC Internet Home Page is accessible at http:\\ednet.edc.gov.ab.ca.mrc. It includes sections on: About the MRC, Product Information, What's New at the MRC, and MRC Partners. It also includes the *MRC Equipment Catalogue, Catalogue of Consumable Items, New Resources* and the *MRC Newsletter.*

Publications

Titles Catalogue:

- a listing of all special format materials, kits and professional items arranged in alphabetical order by title
- published annually in January with a July supplement
- stored in a titles catalogue binder which is provided by the MRC
- the catalogue is cumulative. When the January catalogue is received, discard the previous catalogue and supplement.

Subjects Catalogue:

- a listing of all special format materials, kits and professional items arranged in alphabetical order by subject heading
- published annually in January with a July supplement
- stored in a subjects catalogue binder which is provided by the MRC
- the catalogue is cumulative. When the January catalogue is received, discard the previous catalogue and supplement.

For procedures on how to use the catalogues, refer to the instruction sheets sent with the catalogues and/or call the MRC.

MRC Equipment Catalogue:

- a listing of equipment available for loan.

New Resources:

- contains special format materials and professional resource items added to the MRC collection since the production of the previous list
- published nine times throughout the school year
- upon receiving the *Titles Catalogue* or *Titles Supplement Catalogue* or the annual *Kits Subject Catalogue*, discard all previous *New Resources*.

Newsletter:

- profiles information about changes in MRC staff
- contains procedural information on the MRC which can be incorporated into the school's *MRC Procedures Manual*
- lists information about upcoming workshops or conferences
- published nine times throughout the school year.

MRC New Releases Tape:

- an audiotape accompanied by a print listing of newly acquired items which fall into the categories of best sellers, mass market paperbacks or popular novels.
- produced as resources permit
- distributed through schools to junior and senior high school students so that they can make their own reading selections.

MRC Kits Subject Catalogue:

- an alphabetical listing by subject heading of concept development kits, games, mathematical/scientific models, etc., available for loan
- published annually and distributed at the beginning of the school year.

***Bibliography of MRC Bibliographies*:**

- a listing of bibliographies written by MRC staff provides an alternate access to the MRC special format collections.

Catalogue of Consumable Items:

- items in the catalogue have been identified as being of assistance to students who are visually impaired but are not provided as part of the MRC service
- a listing of consumable items that either cannot be reused or are considered to be small low-vision aids
- ordering information is provided.

Borrowing Materials from the MRC

The MRC loans:

- braille, audiotape and large print curriculum, and leisure reading material
- kits, including sensory, concept and skills development materials; tactile games and maps
- professional resources for educators of the visually impaired.

Specific items can be chosen from MRC publications which are sent to teachers and consultants who work with students with visual impairments.

- *Tiles Catalogue* and *Subjects Catalogue*
- *New Resources*
- *Kits Subject Catalogue*
- *Bibliographies*
- *Catalogue of Consumable Items.*

How to Order Materials

The MRC provides order forms.

- Schools can fax, courier or mail their orders.
- Limit your request to one format per order form.
- If you are ordering a title that is not listed in the *MRC Catalogue* in the format the student requires, complete a Resource Order Form and send it to the MRC with the print copies as specified on the form. The MRC has a recognized priority for accepting titles for production.

Due Dates

- Not using it? Return it! Returning unused materials promptly ensures that another student will have a chance to use it.
- Curriculum materials are loaned for the entire school year.
- All kits and other resources, such as leisure reading and professional resource books have a one-month loan period. These titles are subject to recall when a waiting list develops.
- The MRC begins to process requests for holiday stories six weeks before the holiday. Initially, orders are limited to two holiday stories per student.

Returning Materials

- MRC policy is to pay the cost of sending all items requested to schools. Schools are required to return items to the MRC at their own expense.
- Braille and audiocassettes can be sent free of charge with the designation of "Literature for the Blind." Costs will be incurred to return large print, kits and equipment. It is the experience of MRC staff that shipping rates from all areas of Alberta are similar.

Returning Kits

- Return the box! Every kit sent to you is packaged in its own box, some of them specifically designed to hold the contents of the kit.
- Check the contents! Every kit has a list of contents. This is to ensure that you check and return all parts of the kit. A kit such as "Bright Sights" has well over 100 individual pieces! The returned kit is checked at the MRC and missing items recorded. A kit does not circulate if parts are missing and may be out of commission for several months while awaiting replacement parts.

- Send it back to the MRC. Please wrap the box to prevent wear and tear, and loss of contents should the kit box open during transit. Whereas small, durable kits can be sent via Canada Post, larger more fragile kits should be sent prepaid through a courier service; e.g., Loomis, Purolator, etc.

Renewals

You may renew the loan of specific items. To do this, complete the Renewal Request Form for titles which you will be storing in your school over the summer months for use in September. Do not use the MRC Resource Order Form for renewals.

Borrowing Equipment from the MRC

- To borrow equipment, students must be registered with the MRC. Students are registered by education consultants or itinerant teacher/strategists for students with visual impairments.
- The MRC Equipment Order Form should be used to request equipment for student use. An order form is included at the back of the *Equipment Catalogue*. It is to be saved as your master and photocopied as required.
- A Loan or Renewal Agreement will be sent to the principal of the school, or to a person authorized by the school jurisdiction to sign agreements. An authorized signature denotes acceptance of financial responsibility for MRC equipment while on loan to the school and in transit back to the MRC. One procedural option is for the school or jurisdiction to add the estimated replacement cost (as provided by the MRC) to insurance coverage.
- Instruction manuals should be read carefully before the equipment is operated. When applicable, battery charging is discussed in the manual. Equipment should be kept in a safe area while in the school. The dust covers provided with many pieces of equipment should be used when the equipment is not in use.
- Specialized equipment is fragile, technically exacting and expensive. Equipment loaned by the MRC is carefully packed, frequently in specially designed moulded packing boxes. MRC packing boxes are to be stored in the schools. These boxes and the original packing are to be used to return requirement to the MRC.
- It is the responsibility of the school or school jurisdiction to return equipment, securely packaged, at its own expense. Equipment should be returned by private courier or registered mail.
- The return of a faulty piece of equipment should be accompanied by a description of the problem in order to facilitate repair.
- Replacement equipment will be provided on request, whenever possible, while malfunctioning equipment is being repaired.
- Equipment is loaned on a first come, first served basis. If the MRC is unable to fill a request immediately because it is out-of-stock, the student will be placed on a waiting list until the equipment becomes available. Equipment should be returned if it is no longer being used, or if the student changes or leaves school, so that it can be reassigned.
- The normal loan period for most pieces of equipment is one school year. Renewal arrangements can be made, if necessary.
- The MRC is responsible for repairs to MRC equipment only.
- The MRC can provide ordering information for equipment listed in the catalogue.

Information for the Substitute Teacher[18]

Date: _____

TO MY SUBSTITUTE:
Please be aware that _____ is in my _____ class. _____ is a student with a visual impairment who reads:

- ❑ in braille
- ❑ in large print
- ❑ with audiotapes
- ❑ using magnification devices.

Please remember:

1. Anything you write on the board will need to be verbalized.

2. During fire drills, you will need to take care to make sure this student is safe. I have made the following special arrangements to ensure his or her safety:

_____

_____

_____

3. Other:

_____

_____

_____

Should you have any questions or concerns, speak to _____ here at the school, or contact the education consultant or itinerant teacher/strategist for students with visual impairments, _____ at _____ (telephone number).

Sincerely,

_____

[18] Adapted from Calgary Board of Education, 1995, Calgary, AB. Reprinted with verbal permission.

Section VIII
Glossary[19]

Please note that definitions of common eye conditions are found on page VI.3.

Acuity: The sharpness of vision; usually refers to central vision.

Adventitious: Accidental or acquired; not hereditary.

Age-appropriate: Consistent with the concept of normalization. This refers to the use of materials and activities with individuals who have developmental delays which reflect their chronological age rather than their developmental age.

Aligning: Lining up the right or left side of the body against an object or surface to assist in establishing a line of travel.

Amblyopia: Low or reduced visual acuity without an apparent disease of the eye.

Aniridia: Complete or partial absence of the iris, usually hereditary.

Anophthalmos: Absence of the eye caused by a developmental defect.

Aphakia: Absence of the lens of the eye.

Auditory Sense: Related to or experienced through the process of hearing.

Binocular Vision: The ability to use the two eyes simultaneously to focus on the same object and to fuse the two images into a single image. This gives a correct interpretation of the object's solidity and position in space.

Blind Mannerisms: Repetitive, stereotypical movements and mannerisms, such as eye-poking and rocking which are characteristic of many blind individuals.

Blindness: Legal blindness ranges from a visual acuity of 6/60 (20/200) in the better eye after correction to having no usable vision, or a field of vision reduced to an angle of 20 degrees.

Body Awareness: A conscious appreciation of the relationship of all body segments to each other and to objects. A mental picture of the physical parts of a person and their relationships to each other.

Body Image: Picture of one's own physical body and its capacity for movement and function.

Buphthalmos (Hydrophthalmos): Enlargement of the eyeball (usually due to glaucoma).

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[19] Adapted from *Perkins activity and resource guide: a handbook for teachers and parents of students with visual and multiple disabilities* (pp.11–2 to 11–18), by Charlotte Cushman, et al., 1992, Watertown, MA: Perkins School for the Blind. Reprinted with permission.

Clearing: The process of checking to see if an area is free of objects. This can be done by sweeping a cane on the floor or ground, or by sweeping a hand on a surface, such as the seat of a chair.

Clue: Any sound, odour, temperature, tactile or visual stimulus that affects the senses and can readily be used in determining one's position in space or to help establish a line of direction.

Coloboma: Congenital cleft due to failure of the eye to complete growth in the part affected, such as a gap in the formation of the iris.

Colour Blindness (Colour Deficiency): Diminished ability of the visual system to perceive differences in colour, especially in red and green.

Compensatory Skills: Techniques, habits or activities that must be developed to overcome severe visual impairment. Includes daily living skills, social skills or emotional skills.

Concrete Objects: Actual physical objects which can be experienced tactually and visually as known things.

Cones: Light-receiving retinal nerve cells concentrated primarily in the central retina of the eye, concerned with colour discrimination and detail vision in high levels of illumination.

Congenital: Existing before birth or at birth; dating from birth.

Contrast: The relative difference between lightness and darkness of things observed.

Depth Perception: The ability to perceive the relative distance of objects and their spatial relationship to each other.

Developmentally Delayed: Functioning at a developmental level below one's chronological age.

Diabetic Retinopathy: Diabetes causes hemorrhaging of blood vessels in the retina, causing decreased visual acuity and fluctuating vision; progressive, gradual loss of vision; secondary conditions of glaucoma; retinal detachments; cataracts and eye palsies.

Diopter: A unit of measurement of the refractive power of a lens or an optical system.

Diplopia: The seeing of one object as two; double vision.

Direction Taking: Using an object or sound to assist in travelling a straight line.

Directionality: The ability to physically move your body when given various positional terms: right, left, forward, backward.

Distance Vision: Refers to the visual acuity level attained at six metres (20 feet).

Down's Syndrome: A congenital condition due to a genetic abnormality (extra #21 chromosome). Ocularly, individuals with Down's syndrome may demonstrate an obvious squint and nystagmus. Many are highly myopic (near-sighted) and almost half of this population have congenital cataracts.

Drop Off: Any sharp decline in the environment such as a down curb or stairs.

Eccentric Viewing: Tilting of the head to gain the best image.

Enucleation: Complete surgical removal of the eyeball.

Esotropia: An involuntary turning inward of one eye (convergent strabismus or crossed eye).

Exotrophia: Abnormal turning outward from the nose of one or both eyes (divergent strabismus).

Eye Dominance: Tendency of one eye to assume the major function of seeing, being assisted by the less dominant eye.

Familiarization: The process of learning the placement, arrangement and relationship of objects within an area.

Field of Vision: The area or extent of physical space visible to an eye held in a fixed position.

Fixation: The process, condition or act of directing the eye toward the object of regard, causing, in a normal eye, the image of the object to be centered on the fovea.

Focus: The point where light rays converge after passing through a lens.

Fovea: Small depression in the retina at the back of the eye; the part of the macula adapted for most acute vision.

Fusion: The power of coordinating the images received by the two eyes into a single mental image.

Gait: The style or rate of walking.

Glare: A quality of relatively bright light which causes discomfort in the eye or which interferes with visibility and visual performance.

Guideline: Also called "shoreline." A line in the environment where two surfaces meet (sidewalk and grass).

Hemianopsia: Blindness of one-half of the visual field of one or both eyes.

Homebase: A familiar location and starting point to learn the relationships of other objects in a given area (the front door of a classroom).

Hypertropia: Strabismus characterized by the upward turn of one eye.

Hypotropia: Strabismus characterized by the downward turn of the eye.

Illumination: Providing physical light to an area.

Intraocular: Within or inside the eye.

Iris: Coloured circular membrane suspended behind the cornea and in front of the lens of the eye.

Iritis: Inflammation of the iris.

Keratoconus: Cone-shaped deformity of the cornea.

Kinesthetic Sense: Ability of the brain to perceive the location or relationship of parts of the body as they are moving, without checking their location with any other sense.

Landmark: Any sensory information, such as a familiar object, sound, odour, temperature or tactile clue, useful to an individual to assist him or her during independent travel.

Large Print or Type: Print that is larger than type commonly found in magazines, newspapers and books.

Laterality: The internal process whereby the individual has complete motor awareness of both sides of the body.

Lens: The part of the eye located immediately behind the pupil; its function is to focus light rays on the retina.

Light Perception (L.P.): The ability to distinguish light from dark.

Long White Cane: A cane which is designed for travel purposes for an individual who is blind/visually impaired. Its purpose is to detect obstacles and surface changes in the travel environment of its user.

Low Vision (Partial Sight): Reduced central acuity or visual field loss which, even with the best optical correction provided by regular lenses, still results in visual impairment from a performance standpoint.

Low Vision Aids: Optical or non-optical devices useful to persons with low vision.

Low Vision Assessment: Comprehensive assessment of a visually impaired person's visual impairment, visual potentials and capabilities.

Macrophthalmos: Abnormally large eyeball, resulting chiefly from infantile glaucoma.

Macula: The small area of the central retina that is the area with greatest visual acuity.

Magnifiers (Hand, Stand, Illuminated)**:** Convex lenses that can increase the size of a retinal image or can bring the image into clearer focus.

Metronome: An instrument designed to mark exact time by a regularly repeated tick.

Microphthalmos: Abnormally small eyeball present at birth.

Mobility: The ability to move from one location to another in a safe and efficient manner. Term used to denote the ability to navigate from one's present fixed position to one's desired position in another part of the environment (see Orientation).

Mobility Device: Equipment used in the same manner as a long white cane. Its function is to act as a device and detection tool of obstacles and ground surface changes to the person using it.

Monocular: Pertaining to or affecting one eye. Pertaining to any optical instrument which is used with only one eye.

Multihandicapped:
Term used to classify individuals with two or more disabilities present.

Muscle Balance: Ability of the eye muscles of each eye to pull together to allow binocular vision to occur in all directions.

Near Vision: The ability to distinctly perceive objects at normal reading distance, about 36–40 cm (14–16 inches) from the eyes.

Nemeth Code: a mathematical and scientific notation code in braille.

Null Point: The point at which nystagmoid movements slow or stop. The individual will often tilt one's head to create this state.

Object Perception: The ability to use sound and the absence of sound to locate and avoid objects in a travel pathway.

Occipital Lobe: About 80 per cent of messages from the eye go to the occipital lobe in the back of the brain where most of the seeing takes place and images are formed. The other 20 per cent of messages go to the part that controls the eye muscles for eye movement, etc.

Occluder: A patch placed over the eye to obscure or block vision.

O.D. (Oculus Dexter): The right eye.

Olfactory Sense: Relating to or experienced through the sense of smell.

Ophthalmologist: A physician, an MD, who specializes in diagnosis and treatment of defects and diseases of the eye, performing surgery when necessary or prescribing other types of treatment, including glasses.

Optic Atrophy: Degeneration of the optic nerve which carries messages from the retina to the brain.

Optic Nerve: The rods and cones are light receptors sending information to the brain via millions of tiny nerve fibres that come together in the back of the eye to form one big bundle called the optic nerve.

Optician: A professional that grinds and fits lenses prescribed by an ophthalmologist or optometrist.

Optometrist: A doctor of optometry, an O.D. is a health care professional who specializes in the examination, diagnosis and treatment of conditions or impairments of the visual system.

Orientation: The ability to use sensory information to know one's location in the environment and to know one's relationship to objects in the environment. Process by which a person who is blind or visually impaired uses the remaining senses to establish his or her position and relationship to all other significant objects in the environment (see Mobility).

O.S. (Oculus Sinister): The left eye.

O.U. (Oculus Uterque): Both eyes.

Partial Sight: For educational purposes, a partially seeing student is one who has visual acuity of 6/21 (20/70) or less in the better eye after correction and who can use vision as the chief channel of learning.

Peripheral Vision: Ability to perceive presence, motion or colour of an object outside of the direct line of vision.

Photophobia: Abnormal sensitivity to and discomfort from light.

Point of Reference: A determined fixed point within an environment which is used to create a relation or connection with other points in the same environment.

Pre-cane Skills: Concept development and travel skills usually taught prior to cane techniques.

Protective Technique: The use of specific hand and forearm positions as a means of self-protection as one navigates forward into space. These techniques are employed to detect objects that are located at face or body level.

Ptosis: Drooping of the upper eyelid below its normal position.

Pupil: The round hole in the centre of the iris; its purpose is to regulate the amount of light entering the eye.

Reading Stand: Device that supports regular or large print books.

Residual Vision: Any usable, remaining vision.

Retina: The thin membrane which covers the entire inside surface of the eye.

Rods: Light-receiving retinal nerve cells concentrated in the peripheral retina; sensitive to movement and light in low levels of illumination.

Saccadic Movement: A quick, abrupt movement of the eye, as obtained in changing fixation from one point to another.

Scotoma: A blind or partially blind area in the visual field.

Search Pattern: A method of recovering a dropped object.

Sensory Training: Learning to use the senses (hearing, touch, smell and sight) to one's maximum potential.

Shorelining: Following a guideline in the environment, usually by using a cane (see Guideline).

Sighted Guide: The use of a sighted person as a travel partner; the individual who is visually impaired actively makes contact with the sighted guide by holding his or her upper arm and moves in tandem with the guide.

Slate and Stylus: Portable braille writing tools used for note-taking.

Snellen Chart: Used for testing central visual acuity. It consists of lines of letters, numbers or symbols in graded sizes. Each size is labelled with the distance at which it can be read with the normal eye. Most often used for testing vision at six metres (20 feet).

Sound Differentiation: The ability to distinguish between different and useful sounds.

Sound Localization: The ability to determine the exact bearing, line or direction of the source of a sound.

Spatial Relationship: The ability of an observer to perceive the position of two or more objects in relation to self and others.

Squaring Off: Lining up the back of the body against an object or surface to assist in establishing a line of travel.

Stereopsis: Visual perception of depth or three-dimensional space.

Stereoscopic Vision: Ability to perceive relative position of objects in space without such cues as shadow, size and overlapping.

Tactile: Pertaining to the sense of touch.

Total Blindness: Complete inability to see.

Trailing: The act of using the hand to follow a surface for any or all of the following reasons: to determine one's position in space, to locate a specific object or place, to obtain a parallel line of travel.

Tunnel Vision: Contraction of the visual field to such an extent that only a small area of central visual acuity remains, giving the affected individual the impression of looking through a tunnel.

Typoscope: A black card in which a window has been cut, which is the length and width of two or three lines of print. When placed on the page, it helps the student focus.

Visual Acuity: Acuteness or clearness of vision which is dependent on the sharpness of the retinal focus, the sensitivity of the optic nerve and the interpretive faculty of the brain.

Visual Attention: Sustained looking at visual objects or pictures.

Visual Awareness: Knowledge that something visible is present in the visual field.

Visual Cortex: The area of the brain where visual information is received and interpreted for seeing.

Visual Cues: Any type of visual information which may be used by an individual to orient self in space, move from one place to another, perform any task or function, or locate a desired place or object.

Visual Efficiency: The degree to which specific visual tasks can be performed with ease, comfort and minimum time — contingent upon personal and environmental variables.

Visual Exploration: Careful inspection of visible things or the surrounding environment.

Visual Field: The area of physical space visible when the body, head and eyes are in stationary position.

Visual Functioning: A person's use of vision to perform tasks which require visual orientation. Visual functioning seems to be related to previous experiences, needs and expectations of self or others, and general motivation.

Visual Impairment: Any optically or medically diagnosable condition in the eye(s) or visual system that affects the development and normal use of vision. Impairments may be of a minor nature, may be correctable, or may be severe and uncorrectable.

Visual Motor: The control and manipulation of body movements in relation to what is observed.

Visual Perception: The learned ability to construct a visual image, to be able to distinguish characteristics and to give meaning to what one sees.

Visual Stimulation: Presentation of visual objects and materials in a consistent and orderly sequence so as to permit and foster visual perceptual development.

Section IX
Teaching Resources

This listing is not to be construed as an explicit or implicit departmental approval for use of the resources listed. These titles are provided as a service only, to assist school authorities to identify resources that contain potentially useful ideas. The responsibility to evaluate these resources prior to selection rests with the user, in accordance with any existing local policy.

Awareness series (1995). Edmonton, AB: Alberta Education (available from the LRDC).

This series of brochures helps teachers handle extraordinary learning and medical conditions. They include: allergies, asthma, autism, cerebral palsy, deafness and hearing loss, diabetes, Down's syndrome, emotional disturbance, epilepsy, fetal alcohol syndrome, learning disabilities, muscular dystrophy, spina bifida, Tourette syndrome and visual impairments.

Base ten blocks. Exclusive Educational Products (available from the LRDC).

These mathematics manipulatives include 10 centimetre cubes, 80 flats of 100 units, 400 rods of 10 units and centimetre cubes of 1000 units.

Chisanbop (Korean finger math). Materials available from Foothills Academy Society, Calgary, AB.

Neurological impress method of teaching mathematics skills using fingers. Appropriate for students experiencing difficulty learning basic mathematics facts.

Concept development for visually handicapped children: a resource guide for teachers and other professionals working in educational settings (1982, ©1973) by William T. Lydon & Loretta M. McGraw. New York, NY: American Foundation for the Blind (available on loan from the MRC).

A program for integrating such concepts as body imagery, gross motor movement, posture and tactile discrimination into the curriculum from ECS on. Discusses the differences in the ways blind and sighted students learn about their bodies and environments. Presents a clear description of each concept along with exercise for its implementation.

Cranmer abacus. Louisville, KY: American Printing House for the Blind.

To assist students with visual impairments to learn mathematics by way of concrete examples. The frame of the abacus measures 6¾ inches by 3¼ inches. A larger version is available for use by young students and those who lack fine motor skills.

Creative play activities for children with disabilities: a resource book for teachers and parents (1989) by Lisa Rappaport Morris & Linda Schultz. Champaign, IL: Human Kinetics Books.

This book has been designed to promote the development of young children with disabilities through play and games, providing ideas and resources for use in the classroom and home.

Cube-a-Link Cubes (available from the LRDC).

These mathematics manipulatives include one box of 500 cubes, 50 each of 10 colours.

An Evaluation of technical equipment used by students with visual impairments (1993) by Dianne McConnell. Edmonton, AB: University of Alberta.

An assessment tool that can be used to evaluate a piece of technical equipment for a specific student with a visual impairment, as well as assist professionals in the evaluation of newly developed technology.

Films on blindness, July 1992: an annotated listing of films and videos on blindness and visual impairment (1992). Louisville, KY: American Printing House for the Blind (available on loan from the MRC).

Compiled for the Association for Education and Rehabilitation of the Blind and Visually Impaired July 1992 conference. Information about each film includes title, source, length, year of production and a description of the content. Addresses for sources are in the appendix.

Foundations of education for the blind and visually handicapped children and youth: theory and practice (1986) by Geraldine T. Scholl. New York, NY: American Foundation for the Blind (available on loan from the MRC).

This book is divided into three sections. Part I provides an overview of basic information about students with visual impairments, for teachers. Part II discusses the components that are basic to any educational program for students with visual impairments. Part III presents special concerns related to the school curriculum.

Get ready, get set, go: a guide for parents of visually impaired children (1980) by Jeannette Schuch. East Lansing, MI: International Institute for Visually Impaired (available on loan from the MRC).

The author is an ECS teacher in a school for children who are blind. Her purpose is to impress upon parents and caregivers that a child's early experiences have a direct influence on how competent the child will become.

Getting in touch with play: creating play environments for children with visual impairments (1991) by Kim Blakely, Mary Ann Lang, Roger Hart. Long Island City, NY: The Lighthouse Inc. (available on loan from the MRC).

The purpose of this manual is to offer design ideas that support more creative and satisfying play experiences for students who are blind or visually impaired as well as for those with full vision. The book demonstrates how outdoor play environments can be designed to provide stimulating activities through manipulation of play elements, the organization of play spaces and input from adults.

A Guide to independence for the visually impaired and their families (1994) by Vivian Younger & Jill Sardegna. New York, NY: Demos (available on loan from the MRC).

This is a comprehensive, hands-on book for the newly visually impaired and their families. The book teaches basic tasks of daily living, how to address new and puzzling feelings and fears, how to respond to embarrassing situations, how to appropriately assess behaviour and stages of growth, and how to find additional help and information regarding sight loss. Lists of services and organizations are for the United States only.

Helping the visually impaired child with developmental problems (1988) by Sally M. Rogow. New York, NY: Teachers College Press (available on loan from the MRC).

This book is about students with visual impairments who have developmental delays or other additional handicaps. It was written to identify, and through the use of case histories, portray the consequences of combined visual, physical and neurological handicaps; to outline research in the field and to explore approaches to effective intervention and curricula, with an emphasis on community integration. The premise of the book is that integration with people and the environment is essential to effective learning and personal growth.

A Life worth living: a book about parenting infants and pre-schoolers with visual impairment and multidisability (1992) by Judy M. Robinet. Windsor, ON: Robinet Publications (available on loan from the MRC).

Over 75 families relate strategies devised to encourage their children's participation with their families at home and in their communities. The personal reflections explore their feelings of loss and grief, crossing the hurdle of denial and empowering readers to support their children.

Listen and think AR (auditory readiness level) by Eleanor Henry, Dorothy Clavell; editor, Jackie Mallis.

Listen and think B by Eleanor Henry; editor, Jackie Mallis.

Listen and think C, D, E, F, G by Martha Perone, Mary Carter, Sylvia Zucker; editors, Jeanne Burdick, Dorothy Clavell, Jackie Mallis.

Listen and think H, I by Eleanor Henry; editor, Jackie Mallis. New York, NY: McGraw-Hill. Adapted from a 1969 edition of Educational Development Laboratories (available on loan from the MRC).

Listen and Think is a developmental program structured to help the student become an alert listener, a critical thinker and an independent learner. This series consists of 16 cassettes for each level, a teacher's handbook, suggestions for use, braille/large print answer sheets, progress charts, crayons and pins.

Low vision: a resource guide with adaptations for students with visual impairments (2nd edition) (1994) by Nancy Levack. Austin, TX: Texas School for the Blind and Visually Impaired (available on loan from the MRC).

This document provides guidelines for assessing students' visual functioning, planning and implementing programming to enhance students' visual functioning, and serves as a reference guide for information related to low vision.

Math-mate. Cokato, MN: Distributed by Howbrite Solutions Inc.

The math-mate is a self contained manipulative which combines the number line with the abacus. Math-mates are made with laminated number strips recessed into wood. Numerals are printed in black on ivory background. Braille math-mates are also available.

Moving to inclusion: active living through physical education: maximizing opportunities for students with disabilities (1994) by Canadian Association for Health and Physical Education, Recreation and Dance (CAHPER) (available on loan from the MRC).

Includes comprehensive resources on visual impairment, multiple disabilities, cerebral palsy, intellectual disability, physical awkwardness, deaf and hard of hearing.

Proceedings of the Eighth International Conference on Blind and Visually Impaired Children (1993) by Linda B. Stainton & Eugene C. Lechelt. Edmonton, AB: Canadian National Institute for the Blind (available on loan from the MRC).

Proceedings from this conference represent a collection of the thoughts of some of the leading players in the fields of rehabilitation, education, medicine and other professions as they relate to students with visual impairments.

Rap with the facts. Akron, OH: Twin Sister Productions.

Mathematics facts to rap rhythm on tape.

Social skills activities for special children (1993) by Darlene Mannix. West Nyack, NY: Center for Applied Research in Education (available on loan from the MRC).

Over 100 lessons and blackline masters to help students become aware of acceptable social behaviour and develop proficiency in acquiring basic social skills. The lessons are organized in three sections: accepting rules and authority at school, relating to peers, and developing positive social skills.

Software resource guide for selecting software for children with special needs (1992) by Pamela Ross. Evanston, IL: National Lekotek Center (available on loan from the MRC).

This guide includes more than 280 carefully selected software programs that have been used successfully with students with special needs ranging in age from two to 16. Categories include subject, content, age level, exceptionality, hardware, peripherals, description, price, rating, type, teacher options, record keeping, graphics, animation and sound. Separate listings of software companies, peripherals and adaptive equipment resources are included.

Teacher alert system: a guide for teacher managed assessment of students who are "at risk" of school failure (1991) (available from the LRDC, Alberta Education, Edmonton, AB).

This guide is designed for the classroom teacher and school personnel who are concerned about the needs of those students who deviate in some way from the "average student." The *Teacher Alert System* can assist in the identification, assessment and intervention process for students with special needs that make them at risk for learning problems. The *Teacher Alert System* is one way to approach each difficulty and begin to structure each solution.

Teacher intervention practices: TIPS A companion document to the teacher alert system (1992) (available from the LRDC, Alberta Education, Edmonton, AB).

This companion book is for classroom teachers and other school personnel concerned about individual students who may be at risk for learning problems. TIPS addresses issues related to home and school environment, health, learning and temperament. TIPS has a sources of support section that lists the types of personnel who have expertise in the particular area of concern, or the appropriate agencies that can render assistance.

Teaching children with visual impairments (1992) by Anthony B. Best. Philadelphia, PA: Open University Press (available on loan from the MRC).

A practical guide to helping students overcome the effects of visual impairment. Discusses the range and definitions of visual impairment, its population and history, the provision of educational services, the teaching and learning environment, the curriculum, and the development of tactile and listening skills, residual vision, movement and mobility.

Technological resources for students with deaf-blindness and severe disabilities (1992) by Nancy Sall & Harvey H. Mar. New York, NY: Center for Adaptive Technology (available on loan from the MRC).

Includes a detailed review of 20 computer software programs with vignettes describing how each program was adapted for a particular student, listings of adaptive devices, references, hardware and software companies, and an annotated bibliography of 40 articles and papers on special education technology.

Technology for tots: using computers with preschool children with visual impairments (1992) by Barbara Kushner Sosna et al. New York, NY: The Lighthouse Inc. (available on loan from the MRC).

This book is a guide for those who want to teach preschool children with visual impairments how to use computers. The book describes integrating computers into classrooms and homes, answering questions teachers and parents may have about selecting appropriate hardware and software, and sharing information on how to fund and develop computer projects.

Travel tales: a mobility storybook (1988) by Julia Halpern-Gold, Robin Weinstock-Adler, Shelly Faust-Jones. Bethel, PA: Mostly Mobility (available on loan from the MRC).

A storybook about Elliot, a young child with a visual impairment. The book is designed to be read aloud to students with visual impairments from preschool through Grade 3. All chapters are written with a view of the world that makes sense to a child with a visual impairment.

Vision video: integrating the visually impaired student in the 90's (1993). Toronto, ON: Metropolitan Toronto School Board (available from ACCESS and available on loan from the MRC).

This video provides inservice training for classroom teachers and administrators who have students with visual impairments integrated into their school settings. The video demonstrates:

- specific teaching methods and adaptations necessary for successful integration of students who use braille and those with limited visual impairments

- current technology which can assist students with visual impairments and their teachers
- partnerships between itinerant vision teachers, regular classroom teachers, parents and students.

Workjobs — for parents: activity-centered learning in the home (1975). Manlo Park, CA: Addison-Wesley Co. (available on loan from the MRC).

Describes manipulative activities designed to help students develop language and number skills, hand-eye coordination, observing, seeing relationships and making judgements.

Pre-Braille and Braille Teaching Materials for Beginning Braille Readers

A handbook of braille contractions (1990) by Harry Schuchman. Tarzana, CA: American Action Fund for Blind Children and Adults (available on loan from the MRC).

This twin vision booklet is designed to meet the needs of teachers and students of braille. Pages of contractions are arranged alphabetically and numerically, and punctuation is included.

Just enough to know better (1988) by Curran. Boston, MA: National Braille Press (available on loan from the MRC).

This manual is designed to help parents learn the basics of the braille literacy code and numbers.

The Mangold developmental program of tactile perception and braille letter recognition (1977). Castro Valley, CA: Exceptional Teaching Aids (kit available on loan from the MRC).

The Mangold program can be used after the readiness level of *Patterns*, but along with the *Patterns Preprimer.* This program should be used as a supplement to a basal reading series and/or as a remediation program for the braille reader who already knows the braille code but is not a proficient reader.

Patterns pre-braille program (1987). Louisville, KY: American Printing House for the Blind (kit available on loan from the MRC).

A learning readiness program designed for use with children before they begin the readiness level of a basic braille reading program. It provides a teacher's manual which provides guidance on teaching basic book concepts, tactual tracking experiences to provide for concept development and touch-and-tell lessons. This program should be instituted by a trained consultant for students with visual impairments or a teacher assistant who has been trained to teach this program.

Patterns: the primary braille reading program (1981, 1982, 1983). Louisville, KY: American Printing House for the Blind (kit available on loan from the MRC).

This is a complete program designed specifically for young braille readers, readiness through the third reader level. It offers complete kits for six levels: readiness through third reader level, Library Series for five levels and Preprimer through third reader level. This program is taught by a consultant for students with visual impairments or a teacher assistant with guidance from the consultant.

Read again (1990). Louisville, KY: American Printing House for the Blind (kit available on loan from the MRC).

A braille program for teenagers and adults who have been print readers and now need to use braille as their reading medium.

Tactual discrimination worksheets. Louisville, KY: American Printing House for the Blind.

A four-part set of consumable worksheets for braille reading readiness which teaches discrimination and tracking (shapes and angles to braille characters), spaces, long and short lines, same and different.

Touch and tell (1974). Louisville, KY: American Printing House for the Blind (available on loan from the MRC).

A set of three braille reading readiness books designed to stimulate thinking and discussion with young children. They teach discrimination, tracking and basic concepts.

Understanding braille and braille literacy. New York, NY: American Foundation for the Blind.

Two informative pamphlets with information on braille.

Kits

Bright sights: learning to see (1984). Louisville, KY: American Printing House for the Blind (available on loan from the MRC).

This program consists of a set of materials that is divided into two levels: sensory and perceptual. The sensory level is a set of fluorescent materials designed to stimulate a student's initial visual interest and to help him or her develop visual identification skills. The perceptual level contains blocks, peg boards, templates and other materials to help the student develop visual perception and discrimination.

Focus in mathematics (multihandicapped program): fundamental operations and concepts underlying schema (1986) by Frank L. Franks, et al. Louisville, KY: American Printing House for the Blind (available on loan from the MRC).

An activity based program which emphasizes the fundamental operations, properties and structures of mathematics. All concepts are introduced through the manipulation of objects. Operations and concepts include: sorting, matching, counting, addition, subtraction, fractions, graphs, time and money.

Lightbox materials (1984, 1986). Louisville, KY: American Printing House for the Blind (available on loan from the MRC).

The lightbox is a translucent, white plexiglass work surface, lit from below, which provides an even, high-contrast background for opaque materials and a source of illumination for coloured, transparent items. Three different kits can be purchased to go with the lightbox. Level I comes with a variety of materials and a manual of activities designed to teach basic visual skills such as eye-hand coordination, simple matching, colour and form discrimination

and tracking. Level II is designed to teach matching and identification, part-whole relationships, sequencing, pattern duplication, spatial relations and visual memory. Level III was created to help students with visual impairments with skills such as prewriting and handwriting, matching and sorting, recognition and identification (of pictures, numbers and letters) and higher-level spatial relations, visual memory, sequencing, visual closure and part-whole relationships.

Sensory stimulation kit: visual kit (1978). Louisville, KY: American Printing House for the Blind (available on loan from the MRC).

This kit contains a variety of visual stimuli (toys, colourful materials, coloured caps for flashlights and penlights) and cards describing activities for these objects.

Sewell raised line drawing kit (1970s). New York, NY: American Foundation for the Blind (available on loan from the MRC).

Basic kit consists of a drawing board, a pencil stylus and mylar paper. Complete kit consists of a compass, a braille protractor, a braille ruler, a pencil stylus, mylar paper and a drawing board.

Wikki Stix. Phoenix, AZ: Distributed by Wikki Stix Co. (available on loan from the MRC).

Reusable coloured strips made from a special wax compound that never dries out or spoils. It is water proof and non-toxic and is used to outline pictures, letters, numbers or shapes. This kit includes a book entitled *Hands-On Learning with Wikki Stix*.

Section X
Publishers' Addresses

Addison Wesley Publishers Ltd.
26 Prince Andrew Place
P.O. Box 580
Don Mills, ON M3C 2T8
Telephone: (416) 447–5101
1–800–387–8028
Fax: (416) 443–0948
1–800–465–0536
Orders: (416) 447–1779

American Action Fund for Blind Children and Adults
18440 Oxnard St.
Tarzana, CA 91356
USA
Telephone: (818) 343–2022

American Foundation for the Blind (AFB)
Product Center
100 Enterprise Place
P.O. Box 7044
Dover, DE 19903–7044
USA
Telephone: (302) 677–0200

American Printing House for the Blind (APH)
P.O. Box 6085
Louisville, KY 40206–0085
USA
Telephone: (502) 895–2405
Fax: (502) 895–1509

Canadian National Institute for the Blind (CNIB)
12010 Jasper Ave.
Edmonton, AB T5K 0P3
Telephone: (403) 488–4871 (in Edmonton)
1–800–365–2642
(outside Edmonton)
Fax: (403) 482–0017

CAPHER
1600 James Naismith Dr.
Gloucester, ON K1B 5N4
Telephone: (613) 748–5639
Fax: (613) 748–5737

The Center for Adaptive Technology
15 W. 65th St.
New York, NY 10023
USA
Telephone: (212) 873–1409
Fax: (212) 875–0733

The Center for Applied Research in Education
Subs. of Prentice Hall, Inc.
P.O. Box 430
West Nyack, NY 10994
USA
Telephone: (201) 767–5937

Demos Publications Inc.
Suite 201, 386 Park Ave. S.
New York, NY 10016
USA
Telephone: (212) 683–0072

Exceptional Teaching Aids
20102 Woodbine Ave.
Castro Valley, CA 94546
USA
Telephone: (510) 582–4859
Fax: (510) 582–5911

Exclusive Educational Products
243 Saunders Road
Barrie, ON L4M 6E7
Telephone: (705) 725–1166
Fax: (705) 725–1167

Foothills Academy Society
745 – 37 St. N.W.
Calgary, AB T2N 4T1
Telephone: (403) 270–9400

Foothills Educational Materials
#250, 200 Rivercrest Dr. S.E.
Calgary, AB T2C 2X5
Telephone: (403) 236–1655
Fax: (403) 279–7303

Howbrite Solutions Inc.
2500 Montgomery Ave. S.W.
Kokato, MN 55321
USA

Human Kinetics
Distributed in Canada by
E. A. Milley Enterprises Inc.
Mulberry Lane, R. R. # 1
Locust Hill, ON L0H 1J0
Telephone: 1–800–399–6858
Fax: (905) 427–9096

International Institute for the Visually Impaired
1975 Rutgers
East Lansing, MI 48823
USA

International Tele-Film Enterprises Ltd.
301 – 5090 Explorer Dr.
Mississauga, ON L4W 4T9
Telephone: 1–800–561–4300
Fax: (905) 629–1211
E-Mail: itf0001@ibm.net

Learning Resources Distributing Centre (LRDC)
Alberta Education
12360 – 142 St. N.W.
Edmonton, AB T5L 4X9
Telephone: (403) 427–5775
Fax: (403) 422–9750

The Lighthouse Inc.
Low Vision Products
36-02 Northern Blvd.
Long Island City, NY 11101
USA
Telephone: (718) 937–6959
Fax: (718) 786–0437

Magic Lantern Communications Ltd.
775 Pacific Road, Unit 38
Oakville, ON L6L 6M4
Telephone: 1–800–263–1717
Fax: (905) 827–1154

Marlin Motion Pictures Ltd.
211 Watline Ave.
Mississauga, ON L47 1P3
Telephone: (905) 890–1500
Fax: (905) 890–6550

McGraw-Hill Ryerson Ltd.
300 Water St.
Whitby, ON L1N 9B6
Order Desk: 1–800–565–5758
Fax: 1–800–463–5885

Montgomery County Public School
850 Hungerford Dr.
Rockville, MD 20850
USA
Telephone: (301) 279–3000

Mostly Mobility
R. D. 1, Box 1448A
Bethel, PA 19507
USA
Telephone: (717) 933–5681

National Braille Press
88 St. Stephen St.
Boston, MA 02115
USA
Telephone: (617) 266–6160
Fax: (617) 437–0456

National Federation of the Blind
1800 Johnson St.
Baltimore, MD 21230
USA
Telephone: (410) 659–9314

National Lekotek Center
2100 Ridge Ave.
Evanston, IL 60201–2796
USA
Telephone: 1–800–366–PLAY
(708) 328–0001 (Voice)
Fax: (708) 328–5514

Open University Press
Taylor & Francis, Inc.
1900 Frost Road, Suite 101
Bristol, PA 19007
USA
Telephone: 1–800–821–8312
(215) 785–5800

Pennsylvania College of Optometry Bookstore
1200 West Godfrey Ave.
Philadelphia, PA 19141
USA
Telephone: (215) 276–6200

Perkins School for the Blind
175 North Beacon St.
Watertown, MA 02172–2790
USA
Telephone: (617) 924–3490
Fax: (617) 926–2027

Robinet Publication
P.O. Box 1512
Windsor, ON N9A 6R5
Telephone: (519) 978–3358

Teachers College Press
Teachers College
Columbia University
1234 Amsterdam Ave.
New York, NY 10027
USA
Orders to:
P.O. Box 20
Williston, VT 05495–0020
USA
Telephone: 1–800–488–2665

Texas School for the Blind and Visually Impaired
1100 W. 45 St.
Austin, TX 78756–3494
USA
Telephone: 1–800–872–5273

Twin Sisters Product Inc.
1340 Home Ave., Suite D
Akron, OH 44310–2570
USA
Telephone: (216) 633–8900
1–800–248–8946

University of Alberta Press
Athabasca Hall, Room 141
Edmonton, AB T6G 2E8
Telephone: (403) 492–3662
Fax: (403) 492–0719

Wikki Stix Co.
2432 W. Peoria Ave., Suite 1188
Phoenix, AZ 85029
USA
Telephone: 1–800–869–4554
1–800–TOWIKKI

Publishers' Addresses: Specialized Materials and Equipment, Technology

A B SEE
6749 Lasalle St.
Vancouver, BC V5S 3X4
Telephone: (604) 432–1711
Fax: (604) 432–1721

Equipment: Large Print DOS

Aroga Marketing Group Inc.
1405 Bewicke Ave.
North Vancouver, BC V7M 3C7
Telephone: (604) 986–7999
Fax: (604) 986–7070

Equipment: PowerBraille, Duxbury, JAWS, Outspoken, ScreenPower, IBM Zoom Text, Mac inLarge, Braille 'n Speak, Braille Mate, Braille Lite

Blazie Engineering
105 E. Jarrettsville Road, Unit D
Forest Hill, MD 21050
USA
Telephone: (410) 893–9333
Fax: (410) 836–5040

Equipment: IBM Screen Reader, JAWS, Outspoken, Braille 'n Speak, Braille Lite, Duxbury, Type 'n Speak

Canadian National Institute for the Blind (CNIB)
Edmonton:
12012 Jasper Ave. N.W.
Edmonton, AB T5K 0P3
Telephone: (403) 488–4871
Fax: (403) 482–0017

Equipment: Reading Edge, Sharp 620/640, Panasonic and Texas Instrument calculators

Calgary:
15 Colonel Baker Place N.E.
Calgary, AB T2E 4Z3
Telephone: (403) 266–8831
Fax: (403) 265–5029

Lethbridge:
1119 – 3 Ave. S.
Lethbridge, AB T1J 0J5
Telephone: (403) 327–1044
Fax: (403) 380–2672

Medicine Hat:
533 – 1 St. S.E.
Medicine Hat, AB T1A 0A9
Telephone: (403) 527–2211
Fax: (403) 526–3548

Carousel
497A Garbally Road
P.O. Box 43009
Victoria North
Victoria, BC V8X 3G2
Telephone: (604) 388–1146

Equipment: IBM Screen Reader

Duxbury
435 King St.
P.O. Box 1504
Littleton, MA 01460
USA

Equipment: Duxbury

EYES — Entering Your Ear Systems
657 Goulding St.
Winnipeg, MB R3G 2S3
Telephone: (204) 775–1789
Fax: (204) 783–0055

Equipment: JAWS, Braille 'n Speak, Braille Lite, Duxbury

HMI Computer Group
#104, 20577 Langley By-pass
Langley, BC V3A 5E8
Telephone: (604) 533–5400

Equipment: JAWS

L S & S Group
P.O. Box 673
Northbrook, IL 60065
USA
Telephone: 1–800–468–4789
(708) 498–9777
Fax: (708) 498–1482
E-Mail: LSSGRP@aol.com

Equipment: Intellitalk, JAWS, Outspoken, IBM Screen Reader, IBM Zoom Text, MAGic, VisAbility, Mac inLarge, Braille 'n Speak, Duxbury

Materials Resource Centre for the Visually Impaired (MRC)
Alberta Education
12360 – 142 St. N.W.
Edmonton, AB T5L 4X9
Telephone: (403) 427–4681
Fax: (403) 427–6683
E-Mail:
MaterialsResourceCentre@edc.gov.ab.ca

Equipment available on loan: Braille 'n Speak, Braille Lite, Sharp 620/640 talking calculator, Panasonic talking calculator, Texas Instrument talking calculator, Compu-Lenz, CCTV, cassette recorder, brailler.

Microcomputer Science
5220 Bradco Blvd.
Mississauga, ON L4W 1G7
Telephone: (905) 629–1654

Equipment: DragonDictate

Raised Dot Computing
408 South Baldwin St.
Madison, WI 53703
USA
Telephone: (608) 257–9595
Fax: (608) 257–4143

Equipment: MegaDots

Telesensory Systems
455 N. Bernardo Ave.
P.O. Box 7455
Mountain View, CA 94039–7455
USA
Telephone: (415) 960–0920
1–800–227–8418
Fax: (415) 969–9064

Equipment: PowerBraille

Section XI
Community Resources in Alberta

The following provide services which support students with visual impairments.

ACCESS Network
Media Resource Centre
The Media Resource Centre offers video and print resources of programs related to disabilities.
3720 – 76 Ave.
Edmonton, AB T6B 2N9
Telephone: (403) 440–7729
Telephone: 1–800–352–8293
(outside Edmonton)
Fax: (403) 440–8899

Alberta Education
See Learning Resources Distributing Centre, Materials Resource Centre for the Visually Impaired and Special Education Branch.

Alberta Society for the Visually Impaired (A.S.V.I.)
The A.S.V.I. is a support and advocacy group for children with visual impairments, and their parents. Meetings take place once a month and speakers and outings which support the education of professionals who work with children with visual impairments are arranged.
Calgary:
63 Dover Meadow Close S.E.
Calgary, AB T2B 2E4
Telephone: (403) 273–8499
Edmonton:
Box 72063, Ottewell P.O.
Edmonton, AB T6B 3A7
Telephone: (403) 438–4658

Alberta Sports and Recreation (A.S.R.A.B.)
A.S.R.A.B. is a volunteer organization dedicated to the provision of recreation and sports opportunities for Albertans with visual impairments.
Calgary:
Box 85056, Albert Park Postal Outlet
Calgary, AB T2A 7R7
Telephone: (403) 262–5332
Edmonton:
11759 Groat Road
Edmonton, AB T5M 2K6
Telephone: (403) 453–8567
Fax: (403) 453–8553

Calgary Board of Education Student Services
The Calgary Board of Education employs four full-time teachers who specialize in teaching students with visual impairments. These teachers/strategists are available to schools to provide assessment, inservices and assistance with program planning, adaptive materials and equipment, and instruction for students in specialized skills.
Calgary Board of Education
Student Services
728 – 32 St. N.W.
Calgary, AB T2N 2V9
Telephone: (403) 270–0665
Fax: (403) 283–0217 or (403) 777–8001

Canadian Council of the Blind, Alberta Division

The Canadian Council of the Blind advocates on behalf of adults who are visually impaired. Its work includes group and self-advocacy, addressing topics ranging from accessibility and legislative changes to community and government services to help improve independence. It also provides representation for provincial and national conferences.
Edmonton Club
Box 74006
Edmonton, AB T5K 0R0
Telephone: (403) 462–8879

Canadian National Institute for the Blind (C.N.I.B.)

The Canadian National Institute for the Blind offers services to students with visual impairments in the areas of counselling and referral, early intervention and library services. Contract services are provided by professionals in orientation and mobility, technical aids, functional vision assessments and rehabilitation teaching.
Calgary:
15 Colonel Baker Place N.E.
Calgary, AB T2E 4Z3
Telephone: (403) 266–8831 (in Calgary)
1–800–376–2642 (outside Calgary)
Fax: (403) 265–5029
Edmonton:
12010 Jasper Ave.
Edmonton, AB T5K 0P3
Telephone: (403) 488–4871 (in Edmonton)
1–800–365–2642 (outside Edmonton)
Fax: (403) 482–0017
Lethbridge:
1119 – 3 Ave. S.
Lethbridge, AB T2E 4Z3
Telephone: (403) 327–1044
Fax: (403) 380–2672
Medicine Hat:
533 – 1 St. S.E.
Medicine Hat, AB T1A 0A9
Telephone: (403) 527–2211
Fax: (403) 526–3548

Computer Learning and Information Centre (C.L.I.C.)

Parents or school personnel may borrow and preview software programs to determine their suitability for the student before purchasing them. The C.L.I.C. is open from Tuesday to Thursday from 4 p.m. to 8 p.m. Appointments should be made.
#502, 5920 MacLeod Trail S.
Calgary, AB T2H 0K2
Mailing address:
Box 36084, Lakeview P.O.
Calgary, AB T3E 7C6
Telephone: (403) 259–6594

Consulting Services Outreach Belvedere Office

Belvedere is subsidized by Alberta Education to provide services to schools throughout Alberta. These services relate to students with disabilities from the ages of 2 ½ to 20 years. The consultants include physiotherapists, occupational therapists, communication disorders consultants, audiologists, consultants in hearing disorders, psychologists, consultants in visual impairments and education behaviour specialists.
13359 – 62 St.
Edmonton, AB T5A 0V5
Telephone: (403) 473–5616
Fax: (403) 475–7037

Co-ordinated Assessment Services for the Exceptional (C.A.S.E.)

C.A.S.E. is subsidized by Alberta Education to provide services to schools throughout Alberta. An interdisciplinary approach is used to provide appropriate, comprehensive educational programming support for teachers of students with complex needs. Services include audiology, hearing education, occupational therapy, psychology, speech-language pathology, technical aids and vision education.
9351 – 116 Ave.
Grande Prairie, AB T8V 6L5
Telephone: (403) 539–0333
Fax: (403) 539–7613

Edmonton Public Schools

Edmonton Public Schools employs four consultants with expertise in the education of students with visual impairments.
13359 – 62 St.
Edmonton, AB T5A 0V5
Telephone: (403) 473–5616
Fax: (403) 478–7037

Edmonton Public Schools Distribution Centre

The Distribution Centre stocks braille paper and adhesive braille label.
Supplies Catalogue, p.5
18004 – 116 Ave.
Edmonton, AB
Telephone: (403) 453–8000
Order Desk: (403) 455–0247
Fax: (403) 455–7245

Handicapped Children's Services (H.C.S.)

H.C.S. is a service of Alberta Family and Social Services which assists parents with unusual costs associated with parenting a child who has a disability.
Calgary:
Alberta Family and Social Services
Family Support Program
#306, 301 – 14 St. N.W.
Calgary, AB T2N 2A1
Telephone: (403) 270–5461
Edmonton:
Alberta Family and Social Services
Family Support Program
15th Floor, Standard Life Building
10405 Jasper Ave.
Edmonton, AB T5J 3N4
Telephone: (403) 427–4354
Fax: (403) 427–0256

Learning Resources Distributing Centre (L.R.D.C.) (Alberta Education)

The Learning Resources Distributing Centre is the Alberta Government's agent responsible for the acquisition, distribution and sale of learning resources and related educational materials to Alberta schools.
Customer Service and Sales
12360 – 142 St. N.W.
Edmonton, AB T5L 4X9
Telephone: (403) 427–5775
Fax: (403) 422–9750
Internet address:
http://ednet.edc.gov.ab.ca/lrdc

The Low Vision Clinic

At the Low Vision Clinic, an assessment of the most appropriate magnifying aids for each client with a visual impairment is conducted by an ophthalmologist and a rehabilitation counsellor from the C.N.I.B. If a student wishes to attend the clinic, it is recommended that a referral be requested from the student's ophthalmologist.
University of Alberta
2–135 Clinical Sciences Building
University of Alberta
Edmonton, AB T6G 2G3
Telephone: (403) 492–6419
Foothills Hospital
Ophthalmology Department
1403 – 29 St. N.W.
Calgary, AB T2N 2T9
Telephone: (403) 670–1385

Materials Resource Centre for the Visually Impaired (MRC)

The MRC service mandate states that preschool to Grade 12 students with visual impairments in Alberta can borrow special format materials, kits and equipment from the MRC through teachers or consultants. The MRC provides services to school authorities on behalf of students with visual impairments within the province of Alberta as the first priority. As Alberta Education supports the sharing of resources interprovincially, the MRC loans materials, when they are available, to Department of Education Special Materials Resource Centres in other provinces.
12360 – 142 St. N.W.
Edmonton, AB T5L 4X9
Telephone: (403) 427–4681
Fax: (403) 427–6683
E-Mail:
MaterialsResourceCentre@edc.gov.ab.ca

Regional Education, Assessment and Consultation (R.E.A.C.H.)

R.E.A.C.H. is subsidized through Alberta Education to provide consulting services to schools throughout southern Alberta who have students with disabilities from the ages of 2½ to 20 years. Services include physiotherapists; occupational therapists; audiologists; consultants in hearing disorders, visual impairments, communication disorders and behaviour, and psychologists.
5139 – 14 St.
Calgary, AB T2T 3W5
Telephone: (403) 777–6983
Fax: (403) 777–6997

Special Education Branch (Alberta Education)

Alberta Education provides services related to students who have special needs through the Special Education Branch.
10th Floor East Devonian Building
11160 Jasper Ave.
Edmonton, AB T5K 0L2
Telephone: (403) 422–6326
Fax: (403) 422–2039
See also the Special Education Branch's *Teacher Resources Catalogue,*
E-Mail: Bmorban@edc.gov.ab.ca

Technical Resource Centre

The Technical Resource Centre is a non-profit organization which provides information and services on rehabilitation technology to students with physical disabilities.
#200, 1201 – 5th St. S.W.
Calgary, AB T2R 0Y5
Telephone: (403) 262–9445
Fax: (403) 262–4539

William Watson Lodge

The lodge has been designed so that persons who require a barrier-free facility can spend comfortable overnight stays in a wilderness setting.
Peter Lougheed Provincial Park
Kananaskis Country, AB
Telephone: (403) 591–7227

Section XII
Footnote References

1. *Resources for Family Centered Intervention for Infants, Toddlers, and Preschoolers who are Visually Impaired: VIISA Project* (p. 1125), by Elizabeth Morgan, 1995, Logan, UT: Hope Inc.
2. *Ibid* (p. 1126).
3. *Ibid* (p. 1159).
4. *Ibid* (p. 1160).
5. Wording taken from *Materials Resource Centre for the Visually Impaired Equipment Catalogue* (p. 17) by Alberta Education, 1995, Edmonton, AB: Materials Resource Centre for the Visually Impaired. Diagram courtesy of Telesensory Systems Ltd., Mountain View, CA.
6. *Ibid* (p. 19).
7. *Resources for Family Centered Intervention for Infants, Toddlers, and Preschoolers who are Visually Impaired: VIISA Project* (pp. 828–829), by Elizabeth Morgan, 1995, Logan, UT: Hope Inc.
8. *Ibid* (p. 810).
9. *Ibid* (p. 811).
10. *Ibid* (p. 804).
11. *Ibid* (p. 796).
12. *Ibid* (p. 819).
13. *Ibid* (p. 797).
14. *Ibid* (p. 798).
15. *Ibid* (p. 164).
16. Edmonton Public Schools.
17. Regional Education, Assessment and Consultation (R.E.A.C.H.), 1995, Calgary, AB.
18. Adapted from Calgary Board of Education, 1995, Calgary, AB. Reprinted with verbal permission.
19. Adapted from *Perkins Activity and Resource Guide: A Handbook for Teachers and Parents of Students with Visual and Multiple Disabilities* (pp. 11–2 to 11–18), by Charlotte Cushman, et. al., 1992, Watertown, MA: Perkins School for the Blind.

Section XIII
Bibliography

Alberta Education (n.d.). *Materials Resource Centre for the Visually Impaired Equipment Catalogue.* Edmonton, AB: Alberta Education, Materials Resource Centre for the Visually Impaired.

This catalogue identifies the equipment circulated to students who are visually impaired. Where possible, an illustration is provided.

Beaver, Kathleen A., Mann, William C. (1995). Overview of technology for low vision. *The American Journal of Occupational Therapy*, 49(9), pp. 913–918.

This article provides an overview of technology, resources and services to assist persons with low vision in educational and vocational settings.

Cushman, Charlotte, et al. (1992). *Perkins activity and resource guide: a handbook for teachers and parents of students with visual and multiple disabilities, Volumes 1 & 2.* Waterton, MA: Perkins School for the Blind (available on loan from the MRC).

A resource which outlines techniques and methods for working with students who are blind with additional handicaps. It includes units on teaching students with multiple disabilities, developing the educational program, language and cognition, social and motor development, functional academics, vocational training, daily living skills, independent living skills, sensory integration, developmental music, toys, games, leisure time activities, technology, augmentative communication. Most units include educational guidelines, critical skills chart, activities and materials, developmental screening checklists and resources.

Morgan, Elizabeth (1995). *Resources for family centered intervention for infants, toddlers, and preschoolers who are visually impaired*: Logan, UT: Hope Inc. VIISA Project, SKI*HI Institute (available on loan from the MRC).

The first comprehensive manual for both family and centre-based services describes the preschool-aged child with a visual impairment. It includes a section on annotated resources.

Scholl, Geraldine T. (1986). *Foundations of education for the blind and visually handicapped children and youth.* New York, NY: American Foundation for the Blind (available on loan from the MRC).

This resource provides information regarding educational program needs for students with visual impairments including those who have additional disabilities. The book is designed for students who are preparing to be special education teachers and for practising teachers who wish to update their knowledge.

Torres, Iris & Corn, Ann (1990). *When you have a visually handicapped child in your classroom: suggestions for teachers* (2nd edition). New York, NY: American Foundation for the Blind (available on loan from the MRC).

This pamphlet is an introduction to the unique educational needs of students with visual impairments. It was written primarily for the regular classroom teacher who is responsible for teaching a student with a visual impairment.

Willoughby, Doris M. & Duffy, Sharon L. M. (1989). *Handbook for itinerant and resource teachers of blind and visually impaired students.* Baltimore, MD: National Federation of the Blind (available on loan from the MRC).

This handbook provides practical, comprehensive and creative advice about the education of students with visual impairments.

Alberta
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